

DOCUMENT RESUME

ED 037 890

EF 000 274

AUTHOR Collins, George J.; Stormer, William L.
TITLE Condition of Public School Plants 1964-65.
INSTITUTION Office of Education (DHEW), Washington, D.C.
REPORT NO OE-21033-Misc-No-50
PUB DATE 65
NOTE 42p.
AVAILABLE FROM Superintendent of Documents, U.S. Government
Printing Office, Washington D.C. 20402
(FS5.221:21033-65 \$.35)

EDRS PRICE MF-\$0.25 HC Not Available from EDRS.
DESCRIPTORS *Classrooms, *Facility Requirements, Physical
Facilities, *School Buildings, *School Planning,
*School Surveys

ABSTRACT

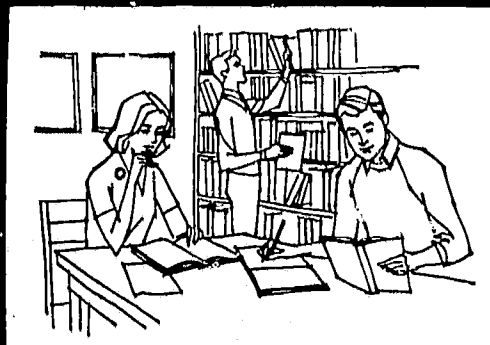
This report provides factual information on the adequacy in terms of number of schoolrooms in the nation's school facilities and the physical condition of schoolrooms. Data are presented regarding--(1) building and site deficiencies, (2) ratio of pupils to instructional rooms, and (3) new facilities needed to achieve desirable pupil-room ratios. A general description is included of the sampling and survey procedures employed as well as definitions of certain forms used in the report. The appendix includes sampling procedures, selected state tabulations, and questionnaire items. (FS)

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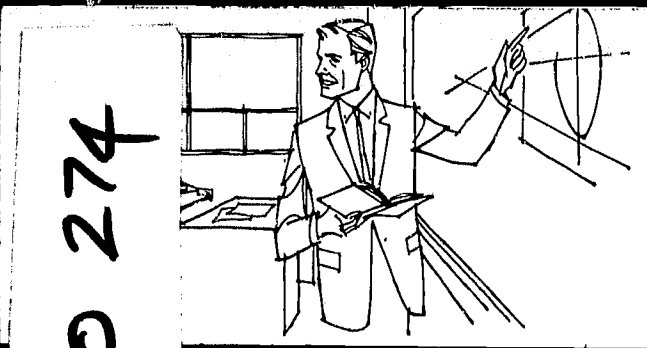
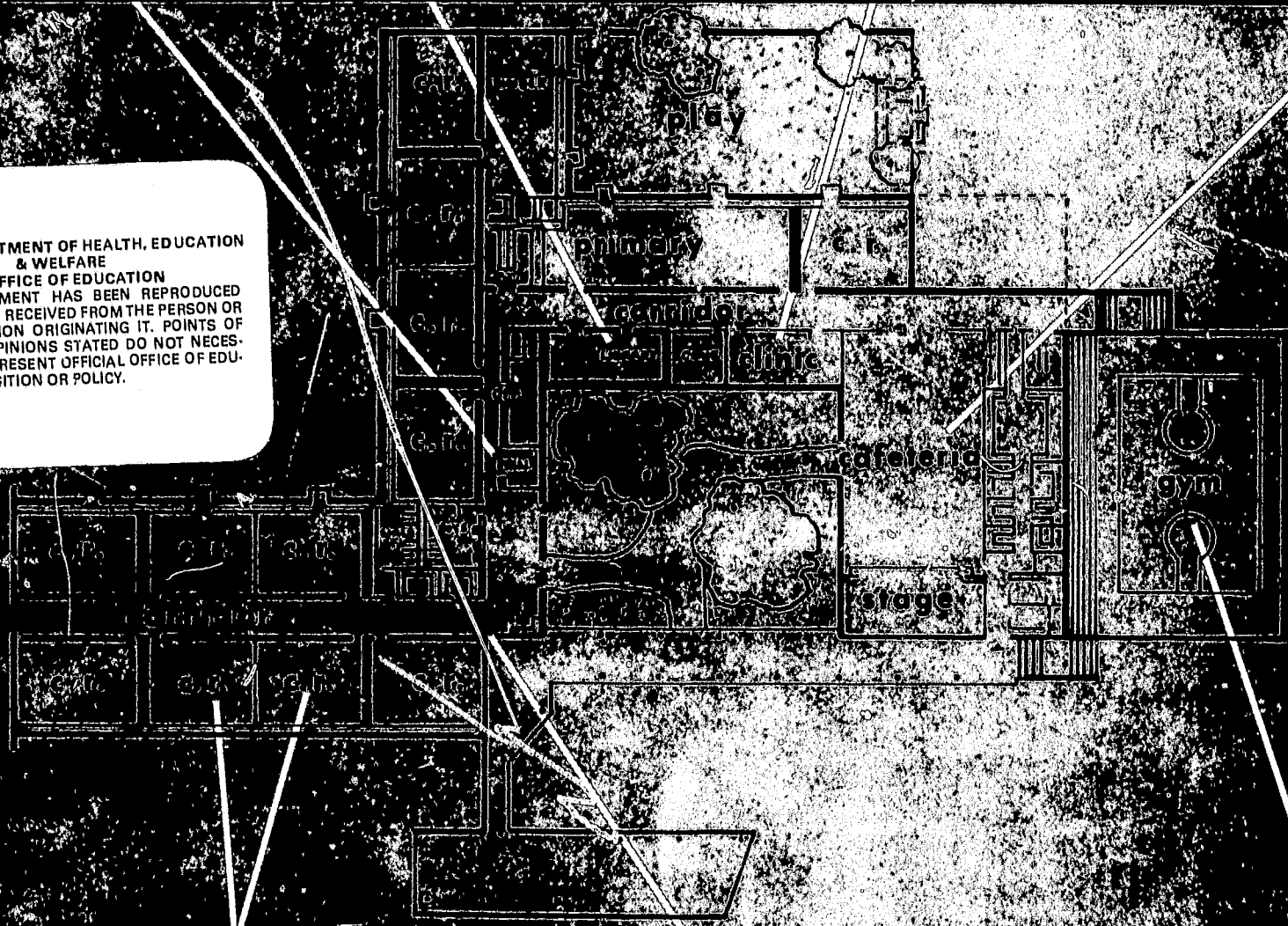
OE-21033

CONDITION OF PUBLIC SCHOOL PLANTS

1964-65



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ED037890

OE-21033
Misc. No. 50

CONDITION OF PUBLIC SCHOOL PLANTS

1964-65

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U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
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A publication of the
BUREAU OF EDUCATIONAL RESEARCH AND DEVELOPMENT
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Superintendent of Documents Catalog No. FS 5.221:21033-65

U.S. GOVERNMENT PRINTING OFFICE, WASHINGTON: 1965

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C. 20402 Price 35 cents

FOREWORD

SINCE 1956 the Office of Education has collected and published information pertaining to the classroom shortage in the Nation. This information was collected in a survey series which utilized the principle of local and/or State determination for the count of crowded and unsatisfactory instructional rooms reported to the public. Difficulty arose in the fact that these data were not readily comparable from year to year, nor between States.

In 1962, the Office of Education in cooperation with State educational agencies, the Bureau of the Census, and the Department of Defense conducted an inventory of public and nonpublic school plants. Although this study was not intended to determine the number of crowded or unsatisfactory classrooms, it did identify in an objective fashion some conditions of school facilities in these areas. In addition, this study stimulated a demand for more detailed information on schoolhousing.

This demand resulted in the development of a survey instrument which, it is believed, secures more definitive data on the condition of school facilities and identifies potential need on comparable bases. Some of the data of this study were first reported in a press release in May, 1965.

The National Center for Educational Statistics is indebted to John L. Cameron, Chief of the Schoolhousing Section of the Office of Education and to the following education agency officials in the State and outlying areas who aided greatly in the conduct of the sample survey:

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I. Introduction

THIS REPORT on the condition of public school facilities is based on a sample of 18,000 school plants, selected to represent the public school plants in use during the 1964-65 school year. This sample of 18,000 plants represents approximately 20 percent of all school plants in the Nation. The sample estimate for the number of instructional rooms is 1.55 million; the Fall Survey¹ reports 1.56 million rooms, or a difference of 0.6 percent. The estimate from the sample of the pupils enrolled is approximately 40.009 million, or about 5 percent less than the enrollment reported in the fall of 1964.² The difference in pupil enrollment is probably primarily the result of differing definitions of enrollment and sampling variation, so that 5 percent may be a fair indication of the level of the accuracy of the numbers of pupils reported in this document.

This report provides factual information on two questions concerning the Nation's school facilities: Are there enough schoolrooms? What is the physical condition of schoolrooms?

With regard to the number of schoolrooms it is found that the median number of students per schoolroom in the Nation is about 27.5. Some 12.645 million pupils (30 percent of all pupils) are in plants with 30 or more pupils per room. To increase the capacity of the plants to the point where there would be not more than 30 pupils per room would require 57,000 additional rooms. A total of 107,000 additional rooms would bring all plants to the present National median (27.5 pupils per room).

An additional 78,000 rooms over and above the preceding numbers would enable school officials to cease using 31,000 makeshift rooms, 32,000 rooms in non-permanent buildings, and 15,000 offsite rooms in churches, vacant stores, etc.

In order to obtain information about the physical condition of school buildings, data were collected on nine specific characteristics: structural soundness, heating, fire alarm system, stairwell construction materials, stairwell enclosures, building exits, fire detection system, electrical capacity, and lighting conditions.

About 16 percent of school buildings (representing 301,000 schoolrooms) have no deficiency in the nine characteristics listed. About 46 percent of buildings (727,000 schoolrooms) have one of the listed defects; 23 percent (318,000 schoolrooms) have two of the defects and 15 percent (166,000 schoolrooms) have three or more of the defects. Generally, buildings with several defects are among the older school buildings.

It should be emphasized that these conditions of

school facilities refer to the 1964-65 school year. Numerous factors change conditions from year to year. New plants are built and old plants deteriorate. Neglected maintenance sometimes leads to severe damage and possible abandonment. Districts are consolidated and as a result some plants are abandoned. Population shifts cause new schoolhousing crises in growing communities, and underutilization of facilities in shrinking communities. The population of the United States continues to grow, creating an always increasing demand for new school facilities. Changing and expanding school programs constantly create requirements for new facilities and modernization of older facilities. The new upsurge of interest in substantially broadening the scope of educational activities in the Nation will certainly result in additional demands for new educational facilities.

School facilities must, above all, serve the main objective of the educational program—learning. If the facilities are inadequate, they assume an unwarranted importance by consuming attention which should be devoted to the program they house. When the facilities are adequate or nearly adequate, they are almost unnoticed. When they are well planned, the facilities complement the teaching and learning processes. It is highly important for local, State, and Federal educators to assess the status of the school facilities throughout the Nation and to develop programs to ensure both the construction of well-designed facilities and the continuous maintenance of those facilities already in use.

The Office of Education mailed the questionnaires in the fall of 1964 to local school systems. Officials there collected and recorded the information. State education departments reviewed the forms for internal consistency and dispatched them to the Office of Education for processing and consolidating into tabular reports.

This report is divided into six parts covering different aspects of the survey. Part I is the introduction. Part II describes: (1) the overall selected characteristics of school buildings, (2) the specific building deficiencies, (3) the combinations of building defects, (4) the characteristics of school sites, and (5) the combinations of the selected building and site conditions. Part III reports pupil-room ratios in school plants, and median number of pupils to rooms for the States and Nation. Part IV presents the appraisal of local school officials with regard to needed schoolrooms and also three calculations of rooms needed to reduce the pupils per room to stated levels. In addition, special types of instructional facilities needed where overcrowding exists are presented in Part IV. Part V provides a general description of the sampling and survey procedures employed as well as definitions of certain forms used in the report. The Appendix, includes sampling procedures, selected State tabulations and questionnaire items.

¹ Carol Joy Hobson and Samuel Schloss *Fall 1964 Statistics of Public Schools*, (OE 20007-64) U.S. Department of Health, Education, and Welfare, Office of Education, Washington: U.S. Government Printing Office, 1964 p. 2.

² *Ibid.*

II. Building and Site Deficiencies

THIS PART OF THE REPORT uses five tables to exhibit information about the physical condition of public school buildings and sites. The first three sections show the overall physical characteristics of public school buildings in the Nation, the distribution of selected deficiencies by the type of school instructional organization, and the accumulation of deficiencies reported by age and fire rating of the buildings. The nine selected characteristics of buildings and the four conditions concerning the site, pertain to the safety and well-being of pupils occupying educational facilities. The fourth section describes the conditions related to health and sanitation. The last section describes the extreme deficiencies in buildings and sites.

Structural aspects.—About 2 out of 3 pupils or 27.01 million pupils are being taught in buildings which show no evidences of structural deterioration: for example, bulging, shifting, sagging, or cracking of foundations, walls, roofs, or floors. (See table 1.) In addition, 9.282 million pupils or about one-fourth are reported in buildings having slight evidences of structural deterioration. Local school officials reported 7,000 buildings, housing about 1.308 million pupils, or 3.3 percent, with extensive structural deterioration.

Fire safety and exiting.—Three important items related to fire safety in this survey are: (1) the availability of an audible alarm system, (2) the construction of fire-resistant stairways and stairwells in multistory buildings, and (3) the compliance with State or local fire-protection standards. About 34.791 million pupils, or 7 out of every 8, are occupying buildings which have fire alarm systems that are distinctly different from other program signals and are audible throughout the buildings. About 1.785 million pupils are housed in buildings where the alarm is not audible throughout the building and 1.685 million pupils are housed in buildings which do not have any alarm system. These last two figures represent approximately 8.9 percent of the pupils attending school at the time of the survey. These 3.47 million pupils attending schools with inadequate alarm systems may or may not also be affected by the two other critical conditions related to fire safety. A later table shows the incidence of buildings with multiple defects. Approximately 19.557 million pupils, about one-half, are housed in buildings with fire-resistant stairways; and 15.439 million pupils, 39.7 percent, are in one-story buildings. There are, however, 3.226 million

pupils in multistory buildings with combustible stairwells and stairways.

The construction of buildings with an adequate number of exits for large groups has been a concern of local and State officials for many years. Standards and regulations for construction have usually been rigorously enforced and school officials are more than willing to cooperate. In many instances newly constructed schools provide many more exits than the required minimums. The major portion of the pupil population, 36.468 million, or 93.7 percent, are housed in buildings which meet existing State requirements for exits. Only 474,000, or 1.2 percent of the pupils, are occupying buildings in which major infractions of exit standards are reported. Most likely, these are buildings constructed before more demanding requirements were included in newer codes.

Electrical service.—About 93.7 percent of the pupil population is located in buildings which have electrical systems that meet the usual demands placed upon them during the day. About 4.5 percent, or 1.736 million pupils, are presently being taught in buildings which have insufficient electrical circuits to meet the normal demands for electricity during the day. Approximately 64,000 pupils are in buildings wholly without electrical service.

Heating.—A comfortable environment is essential to good teaching and learning. Modern architectural engineering emphasizes the value of comfort and a stress-free environment for work and school. School work particularly needs the undistracted attention of pupils. Adequate heating and a sufficient quality of lighting are two vital conditions facilitating teaching and learning. School officials report 34.83 million pupils are attending classes in buildings which can maintain a temperature between 68° and 74° F. in instructional rooms. Approximately 5.2 percent of the pupil population are attending schools not providing this minimum comfort.

Lighting.—Lighting engineers are proposing better quality and higher lighting levels for modern classroom work. This study used an unquestionably minimum level of approximately 30 foot-candles as a suggested criterion in the question: "Is a sufficient amount of nonglare daylight and/or artificial light, uniformly distributed, on desks, chalkboards, and other pupil-work stations in instructional rooms?" Local school officials reported 27.26 million pupils attend schools with at least 30 foot-candles of light. Approximately 9.67 million pupils are

in buildings reported with lighting conditions that are partially satisfactory. Nearly 920,000 pupils, or about 2.4 percent, are in buildings which do not provide satisfactory lighting.

Building deficiencies.—Local school officials report in this survey that the majority of educational buildings in America have fewer than two of the nine building deficiencies surveyed (table 3). Most structures completed within the last decade provide superior educational environments; however, negative characteristics exist in many other school facilities of the Nation. They are presented for permanent buildings in table 2 by the type of school instructional organization. Six of the nine deficiencies have a critical bearing on the safe occupancy of a building and three items are considered essential to the instructional program.

Deficiencies by school organizational level.—The figures presented in table 2 concern defects in permanent buildings and additions to permanent buildings. They do not include nonpermanent buildings or offsite buildings used by the schools. Elementary school buildings are most frequently reported with adverse conditions. Of the total 10,500 buildings, or 6.4 percent of the permanent buildings not able to maintain a heating temperature range of 68° to 74° F. in instructional rooms, half of the heating deficiencies or 3.2 percent are reported for elementary school buildings. The remaining buildings with defective heating are about evenly divided between secondary (2,900 buildings) and combined (2,300 buildings) schools.

The item on fire-detection systems is the only defect found in a majority of buildings and rooms. Nearly 69.7 percent of the pupils are housed in buildings which do not provide sprinkler systems or other fire-detection devices in high fire hazard areas. Of the 70 percent of the pupils without this protection, 36.4 percent are elementary pupils, 20.2 percent are secondary pupils, and 13 percent are pupils in combined school plants.

Relationship of building defects and other building characteristics.—Additional information is provided by combining the building defects with other characteristics of the buildings such as the date of construction and the fire-resistive rating. Of the three age groups used to describe the construction of the buildings on the school site, the more modern buildings completed "after 1940" comprise 73.2 percent of the buildings with one or no defects. Among the categories of fire ratings, the buildings rated as fire-resistive comprise approximately 74.7 percent of the select group with one or no defects. Table 3 reveals that buildings with four or more defects tend to be older structures and are usually not of fire-resistive materials.

Health and sanitation deficiencies of the school site.—Health and sanitation conditions, shown in table 4, may vary in small degrees when several buildings are located on a site, but in general they affect all users of the facilities. As would be expected in 1965, in light of public health programs, 96.6 percent of the pupils are attending schools where the water supply meets local or State health requirements. Some 185,000 pupils, however, still attend 4,600 school plants which do not have water piped into the buildings. This condition exists at each level of school organization, but combined and elementary schools report the greatest frequency. In 7,200 school plants there are 518,000 pupils, or 1.3 percent, who must use outdoor privies. Approximately 30.1 percent of the pupil population in the Nation does not have access to hot water at most handwashing facilities in the school buildings.

Relating site conditions and building conditions.—The building deficiencies and site deficiencies are combined in order to identify extreme conditions. (See table 5.) There are 461,000 pupils, about 1.2 percent, currently housed at school plants with combustible school buildings constructed before 1920 reporting building and site deficiencies. At the other extreme 8.8 percent of the pupil population attend school plants constructed after 1940 which have fire-resistive fire ratings, and report neither site nor building deficiencies.

III.—Ratio of Pupils to Instructional Rooms

THIS PART OF THE REPORT is subdivided into three sections: (1) the ratios of pupils to rooms; (2) the median number of pupils to rooms for the Nation, and (3) the median pupil-room ratios for the States by type of school instructional organization.

Ratio of Pupils to Instructional Rooms

The ratio of pupils to instructional rooms provides one widely used measure of the adequacy of school facilities. (See table 6.) This ratio is determined by dividing the total number of pupils attending the school by the total number of instructional rooms in the school (including makeshift or improvised, nonpermanent, and offsite rooms¹). The resulting ratios are larger than the more familiar pupil-teacher ratios. A high pupil-room ratio is an indication of an overcrowded school plant. In overcrowded plants, high ratios may result from: (1) multiple sessions with a curtailed school day for the pupils, (2) large classes, or (3) the use of itinerant teachers, particularly in secondary schools, where there are usually more teachers than instructional rooms and they move from room to room.

Table 6 presents data which show the distribution of pupils by pupil-room ratios for elementary, secondary, and combined elementary and secondary schools. Pupils in nursery and kindergarten are counted as one-half the number enrolled in computing ratios in order to approximate the practice in most school districts of providing a half day of instruction for pupils enrolled in kindergartens and nurseries. In the United States, District of Columbia, Puerto Rico, Panama Canal Zone, Guam, and American Samoa, about 12.645 million pupils are in elementary, secondary, and combined school facilities with 30 or more pupils per room. Of the 12.645 million pupils, 4.188 million pupils are in secondary schools with 30 or more pupils per room. This figure represents one-third of the secondary school pupils in secondary school plants. There are 6.697 million pupils, or one-third of 21.284 million pupils, in elementary schools; and 1.75 million pupils representing about one-fourth the number of pupils in combined schools with 30 or more pupils to an instructional room.

About 14.281 million pupils attend schools where the pupil-room ratio is less than 25 pupils per room. This is about one-third of the enrollment in elementary schools and secondary schools, but it is one-half of the pupils attending combined schools.

At the extremes 1.84 million pupils are in schools with 40 or more pupils per instructional room and 1.145 million pupils are in schools with less than 15 pupils per instructional room.

The growth of enrollment, particularly in secondary schools in the past two years, has been accommodated by increasing the number of pupils per room. For example, in 1962 there were 10.3 million pupils in secondary school plants in the 50 States and the District of Columbia¹ as compared with 11.9 million pupils in 1964. Most of the increase occurred in secondary schools with 30 or more pupils per room. In 1962 there were 3 million secondary pupils in classrooms of 30 or more pupils in the 50 States and the District of Columbia. This survey reports slightly more than 4 million pupils. Over one-half of the total increase in enrollments was accommodated by enlarging pupil-room ratios.

Median Number of Pupils Per Room

The median pupil-room ratio is 27.5. That is, one-half of the pupils are in school plants with pupil-room ratios higher than 27.5 and one-half are in plants with pupil-room ratios lower than 27.5. In the following table the median number of pupils to a room has been compared with previous information reported in 1962. The

Median Pupil-Room Ratios

Organizational level of instruction in school plants	National Inventory of School Facilities and Personnel Spring 1962 ¹	Condition of Public School Plants, 1964-65
Total	26.9	27.1
Elementary	27.6	27.4
Secondary	26.8	27.5
Combined	24.7	24.7

median for all plants remained about the same. Elementary and secondary school plants have higher ratios than the combined school plants. The median ratios for elementary and secondary school plants are used in computations for preparing table 8. Conditions improved slightly in elementary school plants from (27.6 to 27.4). In secondary plants the median increased from 26.8 to 27.5 since the 1962 National Inventory for the 50 States and District of Columbia.

¹ George J. Collins, *National Inventory of School Facilities and Personnel, Spring 1962*, (OE-21026). U.S. Department of Health, Education, and Welfare, U.S. Office of Education 1964, p. 90.

Median Ratios of Pupils to Rooms Among The States

The median ratios of pupils per instructional room show great variability among the States, depending on the land area and population density of school districts within a State. For elementary school plants, six States have median ratios of 30 pupils per room (table 7). South Dakota has a median ratio of 22 pupils per room. The median for elementary school plants in the Nation is 27 pupils.

In secondary school plants Florida and California have median ratios of 31 pupils per room and Vermont has a ratio of 21. The median for the Nation is 27 pupils for secondary schools, the same as for elementary.

Combined schools offering elementary and secondary educational programs are usually located in less densely populated areas. These schools generally have fewer pupils per instructional class and the medians in table 7 show considerable variation, but in general are less than those for elementary and secondary school plants.

IV.—New Facilities Needed to Achieve Certain Pupil-Room Ratios

THIS PART OF THE REPORT explores the question of whether there are enough schoolrooms. There are presented not only local estimates of rooms needed but calculations of how many rooms will reduce larger pupil-room ratios to specified levels.

Methods of Measuring Crowding

One way to measure the number of rooms needed to relieve overcrowding is simply to ask local school officials: (1) the local standards of class size, (2) the scheduling practices, and (3) any other conditions that affect the capacity of the plant for the program that is being offered. A local school official's assessment is probably more closely related to local goals and plans than any other standardized procedure. The use of this measure, however, has disadvantages from a statistical standpoint and from the viewpoint of a practical understanding of overcrowding. It is also difficult to discover and report the standards actually employed by each local school district in the assignment of pupils to a school plant or to each class group.

The pupil-room ratio provides a simple device for computing the number of rooms needed to relieve any given level of crowding. By illustratively defining a particular pupil-room ratio, such as 30, to be the point at which overcrowding begins, one can compute the number of additional rooms needed to reduce the pupil-room ratio to this level. This method produces comparable data, by a specified, common measure from place to place, but it makes no allowance for differences in local practices and standards. Computations of this type are frequently used for a general determination of the pupil capacity of a school plant.

Further insight can be supplied by repeating the computations with another pupil-room ratio as the point of overcrowding. In this report three different levels are used—pupil-room ratios of 30 for elementary and secondary pupils; the 1964–65 median computed from table 7 which is 27.4 for elementary and 27.5 for secondary; and a pupil-room ratio of 25 for elementary and 20 for secondary pupils. The second level based on the median ratios, actually observed, represents a norm derived from operating practice.

This computation does not include any replacement of makeshift, nonpermanent, or offsite rooms. These rooms are counted as available for use in determining the pupil-room ratio at a school plant under operating conditions.

Varying Measures of Pupil Accommodation

The number of additional instructional rooms needed to accommodate pupils depends upon the overall pupil-room ratio desired. It is difficult to obtain the actual class size of each instructional group, each class hour of the day; but the overall method essentially averages the conditions. A small change in a pupil-room ratio results in a large change in rooms needed. The pivotal figures used for pupil-room ratios in level II of table 8 are the median numbers obtained from table 7 for the 50 States and District of Columbia.

At level II, using the 1964–65 medians, 107,000 additional classrooms would be needed for the 50 States, District of Columbia, Puerto Rico, Panama Canal Zone, Guam, and American Samoa, if all pupils were to be housed in school plants with pupil-room ratios equal to or less than the medians. This number does not include the additional rooms needed to eliminate the use of improvised and makeshift rooms or nonpermanent rooms, or the rooms used away from the main school site.

For level I, with pupil-room ratios of 25 pupils per room in elementary and 20 pupils in secondary school plants which are closely related to the *average pupil-teacher ratios*, the need would be 298,000 additional instructional rooms.

At level III, with pupil-room ratios increased to 30 in both elementary and secondary school plants, only 57,000 additional instructional rooms would be needed.

Appraisals by local public school officials indicate a need for 109,000 additional instructional rooms, a number which is nearly the same as the number of rooms needed to attain the median pupil-room ratios. A comparison of these appraisals with the number of instructional rooms needed to provide pupil-room ratios at the median level of 27.4 in elementary and 27.5 in secondary shows the following differences by the type of school instructional organization.

	Additional instruction rooms needed			
	Total	Elementary	Secondary	Combined
Local appraisal	109,000	47,000	40,000	22,000
Median	107,000	54,000	36,000	17,000
Difference	—2,000	+7,000	—4,000	—5,000

The number of rooms needed to eliminate overcrowding by using the median is substantially the same as the

appraisal of need given by local school officials. The overall difference is only 2,000 rooms, which is within 1.8 percent agreement. Among the types of school instructional organization, however, the differences are greater: local appraisal permits larger classes in elementary than in secondary schools.

Means Used to Eliminate Overcrowding

In addition to increasing the number of pupils in a room, there are generally three other ways of providing for large pupil enrollments with an inadequate number of rooms in a school building. (1) Improvised and makeshift rooms can be provided in unremodeled hallways, basements, storage rooms, or teacher rooms. (2) Nonpermanent classrooms can be moved onto a school site. Some of the most recently constructed nonpermanent facilities are quite satisfactory, but most are less than satisfactory wooden structures; many of them are reactivated World War II barracks.¹ (3) Offsite rooms can sometimes be found in other schools, or in any available space in a school district, such as public buildings, residences, church basements, or unused stores.

Tables 2 and 3 show numbers of makeshift, nonpermanent, or offsite rooms in use at the time of the survey. The numbers in tables 2 and 3 should not be added because some of the makeshift rooms are in nonpermanent or offsite facilities. The duplication of makeshift rooms is eliminated in the following text table. The 31,000 improvised and makeshift rooms in use for 1964-65 reflect an increase of about 3,000 since the 1962 National Inventory when 28,000 were in use. The use of nonpermanent rooms in the 50 States and the District of Columbia has remained about the same over the past two years; approximately 31,000 rooms were, and are, in use. For this survey the local appraisal of the additional rooms needed to eliminate overcrowding is combined with the improvised room arrangements in the following table to present a more comprehensive view of the overall conditions.

Number of additional rooms needed to eliminate overcrowding by using local appraisal and the median pupil-room ratio; including makeshift, nonpermanent, and offsite instructional rooms in 50 States, District of Columbia and four Outlying Areas: 1964-65

Total rooms 187,000		Total rooms 185,000	
To eliminate overcrowding:		To eliminate overcrowding:	
Local appraisal	109,000	Median model	107,000
		27.4 elementary	
		27.5 secondary	
To replace:		To replace:	
Makeshift or improvised ...	² 31,000	Makeshift or improvised ...	¹ 31,000
Nonpermanent	32,000	Nonpermanent	32,000
Offsite (on another school site and not on another school site)	15,000	Offsite (on another school site and not on another school site)	15,000

¹ Frank Carioti, *Relocatable School Facilities*, Educational Facilities Laboratory, New York, 1964.

² To avoid duplications in count, does not include approximately 9,000 makeshift rooms in nonpermanent and offsite facilities.

As just shown, an additional 187,000 rooms would be needed to eliminate overcrowding and to eliminate the use of makeshift or improvised rooms, nonpermanent rooms, and rooms used away from the main school site. The largest number of these rooms is needed in elementary school plants where 21,284 million pupils attend school. The number of these types of rooms in secondary school plants, however, indicates a greater incidence of the use of nonpermanent and offsite rooms for secondary education.

None of these figures in the above table take into account the need for replacing inadequate instructional facilities, new enrollment and the shifting population for 1965-66, or the rooms needed for school district reorganization or the closing of small schools.

Types of Special Instructional Rooms Needed

Local school officials in 22,600 school plants indicated a need for special types of instructional rooms to eliminate overcrowding. No indication of the number of each type of special instructional rooms needed at each school was obtained. Respondents checked the type of facility, and in some instances more than one room of a given type might have been desired. (See table 9.) Science laboratories are needed in 5,500 school plants, or about 6.3 percent of the school plants in the Nation. These plants have 4,588 million pupils, or 11.5 percent of the pupils in the Nation.

The type of room most needed in overcrowded school plants is a music room. Music rooms are needed in school plants housing 5.174 million pupils or nearly 12.9 percent of the pupils. Arts and crafts rooms are needed in school plants with 3.939 million pupils and language laboratories are needed in school plants with 3.061 million pupils.

Industrial, vocational, or technical shops are needed to eliminate overcrowding in school plants with 3.646 million pupils, most of whom are in secondary and combined school plants. Home economic laboratories are also most frequently needed in secondary and combined schools where 1.842 million pupils are attending overcrowded schools.

None of the figures in table 9 take into account the need for replacing inadequate special instructional facilities.

V.—Survey Procedures and Definitions of Terms

THE PROBABILITY SAMPLE used in this survey was taken from the 95,306 records of public school plants in the master file of computer tapes on the *National Inventory of School Facilities and Personnel* compiled in 1962¹ and updated in 35 States to 1964. The selection of respondents was drawn by the stratified cluster sampling technique. The number of school plants sampled in any one State varied with the average number of rooms in school plants and the different organizational types of school plants. The number selected in States ranged from 122 in Delaware to approximately 1,000 school plants in Nebraska and South Dakota. The stratification of school plants, in order to be representative of the State, was based on—

1. The type of school instructional organization (i.e., elementary, secondary, or combined elementary and secondary).
2. The size of school enrollment (i.e., small, medium, or large for each type of school).
3. The period in which construction of the original building on the site was completed (i.e., before 1920, 1920 to 1940, and after 1940).

The Questionnaire

The survey questionnaire was designed to be completed at the school site by a school official having a practical working knowledge of the educational program, instructional rooms, and the conditions of the school plant. The form of the survey instrument was a single sheet containing a series of questions about school buildings and the sites on which they were located. Each questionnaire contained prerecorded data supplied from existing records in the master computer tape file of the *National Inventory of School Facilities and Personnel*² and new items designed for this survey. The respondent checked and verified prerecorded information or inserted current information where changes were needed.

New information was collected on four items pertaining to sanitation and health conditions on the site which may apply generally to all buildings located on a site. The nine questions dealing with specific building conditions are concerned with the structural soundness, fire safety, heating, electrical service, and lighting conditions in buildings used for instructional purposes. The questions used in this sample survey questionnaire represent

a selection of items of information pretested in the fall of 1963.

Mailing, Editing and Processing the Questionnaire

Survey questionnaires were mailed, in most States, by the State educational agencies to local school district offices, and, in turn, to school officials in charge of the school plants. Completed questionnaires were returned through the district and State education agencies to a commercial processing center under contract to the Office of Education. Usually, survey forms were examined for reasonableness and completeness by responsible local and State school officials prior to their being forwarded to the center.

Completed survey instruments received by Office of Education representatives were compared with pre-recorded data and examined for reasonableness and completeness of responses. This editing began soon after the mailout date of September 22, 1964, and continued until the computer tape file was officially closed February 4, 1965. School plant questionnaires for four-fifths of the States were optically scanned and the data transferred directly to magnetic tapes for machine processing before January 1, 1965. Late returns secured for the remaining one-fifth of the States brought the overall response rate to 90 percent on February 4. Tape records for the responding school plants were then machine edited and the responses were tabulated.

Definitions and Classifications of Data

For the convenience of the reader, a selection of more important classifications and definitions used in this report are presented. Definitions and terms used in the questionnaire and this report generally conform to those found in Handbook III, *Property Accounting for Local and State School Systems*³ and the *National Inventory of School Facilities and Personnel*.⁴

School plant.—This was the basic sampling unit. A *school plant* is the site, buildings, and equipment constituting the physical facilities used by a single school or by two or more schools sharing the use of common

¹ George J. Collins, *National Inventory of School Facilities and Personnel, Spring 1962* (OE-21026). U.S. Department of Health, Education, and Welfare, Office of Education, Washington, D.C.

² *Ibid.*

³ *Property Accounting for Local and State School Systems*, (Bulletin N. 22, 1959) U.S. Department of Health, Education and Welfare, Office of Education. Washington: U.S. Government Printing Office, 1959, p. 194.

⁴ George J. Collins, *National Inventory of School Facilities and Personnel, Spring 1962* (OE-21026). U.S. Department of Health, Education and Welfare, Office of Education. Washington: U.S. Government Printing Office, 1964, p. 5-6.

facilities. Data on enrollment, overcrowding, and sanitary deficiencies were reported only for the entire plant.

Elementary, secondary, and combined.—As used in this report, these terms refer to the level of instructional organization of students enrolled at the school plant as a whole. Thus "elementary" does not mean *all* elementary schools, because many elementary schools are in combined plants serving both elementary and secondary pupils. Local school officials classified the instructional organization of school plants when furnishing pupil enrollment data. A school plant may be organized to accommodate elementary school pupils, e.g., pupils in any combination of grades from kindergarten or nursery through and including grade 8 or *secondary* school pupils, e.g., pupils in grades 5 through 14. The Office of Education designates as *combined* school plants those which include both elementary and secondary school pupils located on the same or adjacent school sites. When, however, either the number of elementary or the number of secondary pupils on a site exceeds 90 percent or more of the total enrollment on the site, the school plant is not designated a *combined* plant, but assigned to the group with the predominant enrollment.

Physical characteristics of buildings.—Building characteristics are reported for each building. Buildings are classified as onsite-permanent, onsite-nonpermanent, and offsite facilities. An addition to a permanent building is reported as another building if its characteristics differ from those of the main building to which it is attached. In the case of nonpermanent buildings, groups of structures on the site which have similar physical characteristics may be reported as one building. Offsite buildings housing pupils assigned to the school are included, but physical characteristics are reported only for that portion of the facilities to which pupils are assigned.

Rooms per building.—The number of instructional rooms is reported for each building; thus they can be related to building deficiencies. The existence of general-use facilities, such as auditoriums, libraries, gymnasiums, cafeterias and other multipurpose rooms was recorded on the questionnaire for each building; but data concerning general-use facilities are not analyzed in this report.

Pupils prorated to building.—In the tables, pupils are reported according to the physical and environmental characteristics of school buildings. Enrollments reported on the questionnaire for the entire plant have been prorated into the various buildings according to the number of instructional rooms in each building. In a secondary school, this gives a minimum count of pupils who actually attend classes in a particular building, because secondary pupils usually move from one room to another during the day.

Designed-instructional rooms.—A classroom designed or remodeled for regularly scheduled group instruction includes regular classrooms, laboratories, shops, music studios, and other special instructional rooms. This definition excludes auditoriums, gymnasiums, libraries, and lunchrooms.

Makeshift or improvised rooms.—Any facility or space used for instructional purposes, but not designed, adapted, or specifically and completely equipped for teaching purposes. A makeshift space or room may be established to relieve overcrowding and/or to provide for shortcomings in educational programs; e.g., mobile or semimobile science equipment may be placed in hallways or basements in the absence of a designed science facility.

Special instructional facilities.—A special classroom designed, or provided with built-in equipment, for specialized learning activities. Examples are laboratories, shops, and kindergarten rooms.

Fire-resistiveness rating of school building.—Buildings in the survey were originally classified as noted below in the *National Inventory of School Facilities and Personnel, Spring 1962*,¹ and these classifications were verified in this survey.

Fire-resistive: A building constructed entirely of fire-resistive materials; or a building with fire-resistive walls and partitions, floors, stairways, and ceilings. A building of this type may have wood finish, wood or composition floor surfaces, and wood roof construction over a fire-resistive ceiling.

Semi-fire-resistive: A building with fire-resistive exterior and bearing walls and fire-resistive corridor and stairway walls, floors and ceilings; but with ordinary construction otherwise, such as combustible floors, partitions, roofs, and finish.

Combustible: An all-frame building; a building with fire-resistive veneer or wood frame; or one with fire-resistive bearing walls, but otherwise of combustible construction.

Mixed: A building with one or more sections of one type of construction and one or more sections of another type of construction.

Age of the school plant.—Local school officials indicated the decade in which buildings on the plant site were completed in the *National Inventory of School Facilities and Personnel, Spring 1962*¹ reports. In the sample survey, the age group into which the original building of the school plant was placed was determined by the date the original building was completed. The three different periods used were: (1) before 1920, (2) between 1920 and 1940, and (3) after 1940. The major portion of construction "after 1940" occurred following World War II.

School official.—The term as used in this report refers to the school principal, assistant principal, head teachers in smaller schools, local school district plant planner, director, specialist, or other school administrator responsible for development and provision of suitable school facilities. In some school systems, this person was the district superintendent.

¹ *Ibid.*

Limitations

Completeness of coverage.—The list of school plants from which the sample was drawn was not fully up to date, although coverage was high. As an indication, the number of pupils represented by this survey is 40.009 million, or about 95 percent of the pupils reported in attendance for the Fall of 1964 by the States and outlying areas to the Office of Education.¹

Deficiencies reported.—The respondent was asked to report only deficiencies that generally characterized the *entire* building. Buildings in which only a few rooms were affected by heating deficiency, for example, should not have been reported. On the other hand, a building which was reported because most rooms could not be properly heated might have some rooms that were not defective.

Public schools.—The survey is of public schools operated with local, State and Federal funds; but excluding Federal service schools and Bureau of Indian Affairs schools operated in a number of States.

Age of building.—In table 5, which classifies the school plant by the age of the original building on the site, buildings and additions completed in a later period

are assigned to the period when the original building was constructed. In all other tables the buildings are assigned to the actual construction period reported.

The survey instrument.—The selection of items for determining the condition of school facilities came from tested checklists developed by leading professional school plant consultants. Several questions aimed at major physical conditions of buildings and sites were pretested in the fall of 1963 in 400 schools selected throughout the Nation. School housing specialists reviewed and analyzed the results of the pretest, revisited 69 school plants, and reviewed the effectiveness of the survey instrument. School plant specialists in 19 State educational agencies assisted with the visits. The appraisal of physical conditions by school principals and school plant specialists agreed in the majority of cases studied. A further condensation of the form was carried out to reduce the burden on respondents before this survey was undertaken.

Sampling variability.—Since the estimates are based on a sample, they differ from the figures that would have been obtained if a complete census of school plants, buildings, rooms, and enrollment had been taken, using the same questionnaires, instructions, and procedures. As in any survey work, the results are subject to errors of response and of reporting as well as being subject to sampling variability. At this writing, the computation of the sampling variability has not been completed.

¹ Carol Joy Hobson and Samuel Schloss, *Fall 1964 Statistics of Public Schools* (OE-20007-64). Department of Health, Education, and Welfare, Office of Education, Washington: U.S. Government Printing Office, 1964, p. 2.

NATIONAL TABLES

Table 1.—Number and percent of permanent and nonpermanent buildings, and offsite facilities, rooms, and pupils; by type of building characteristic in 50 States, the District of Columbia, and four Outlying Areas: 1964-65

[Data for buildings are rounded to nearest 100 and rooms and pupils are rounded to nearest 1,000]

Characteristic	Total ¹ buildings and rooms in use, and pupils					
	Buildings		Rooms		Pupils ²	
	Number	Percent	Number	Percent	Number	Percent
50 States, D.C. and four Outlying Areas	165,200	100.0	1,553,000	100.0	38,931,000	100.0
Are any indications of structural defects evident? (<i>Bulging, shifting, sagging, cracking, etc., of foundations, walls, roofs, or floors.</i>)						
<input type="checkbox"/> None.....	114,100	69.1	1,071,000	69.0	27,010,000	69.4
<input type="checkbox"/> Slight, evident for several years.....	27,700	16.8	278,000	17.9	6,825,000	17.5
<input type="checkbox"/> Slight, recently observed.....	9,700	5.9	97,000	6.3	2,457,000	6.3
<input type="checkbox"/> Extensive, evident for several years.....	6,300	3.8	47,000	3.0	1,178,000	3.0
<input type="checkbox"/> Extensive, recently observed.....	700	0.5	5,000	0.3	130,000	0.3
<input type="checkbox"/> No response.....	6,700	4.0	55,000	3.5	1,333,000	3.4
Does the heating system permit a temperature range of 68°-74° F to be maintained in instructional rooms?						
<input type="checkbox"/> Yes.....	141,400	85.6	1,394,000	89.8	34,830,000	89.5
<input type="checkbox"/> No.....	11,500	7.0	84,000	5.4	2,036,000	5.2
<input type="checkbox"/> Not applicable.....	4,800	2.9	23,000	1.5	796,000	2.0
<input type="checkbox"/> No response.....	7,400	4.5	52,000	3.4	1,269,000	3.3
Is the fire alarm distinctly different from program signals, and audible throughout the building?						
<input type="checkbox"/> Yes.....	134,400	81.4	1,386,000	89.3	34,791,000	89.4
<input type="checkbox"/> No.....	7,300	4.4	74,000	4.8	1,785,000	4.6
<input type="checkbox"/> Fire alarm not provided.....	319,000	11.5	365,000	4.2	1,685,000	34.3
<input type="checkbox"/> No response.....	4,500	2.7	28,000	1.8	671,000	1.7
Are stairwells and stairways constructed of fire-resistive materials?						
<input type="checkbox"/> Yes.....	58,500	35.4	776,000	49.9	19,557,000	50.2
<input type="checkbox"/> No.....	19,300	11.7	144,000	9.3	3,226,000	8.3
<input type="checkbox"/> No stairways.....	82,800	50.1	603,000	38.8	15,439,000	39.7
<input type="checkbox"/> No response.....	4,500	2.8	30,000	1.9	710,000	1.8
Are stairways and stairwells properly enclosed so as to separate them from the corridor in order to prevent the spread of smoke or fumes?						
<input type="checkbox"/> Yes.....	45,600	27.6	564,000	36.3	14,134,000	36.3
<input type="checkbox"/> No.....	31,900	19.3	352,000	22.6	8,531,000	21.9
<input type="checkbox"/> No stairways.....	82,800	50.1	603,000	38.8	15,431,000	39.6
<input type="checkbox"/> No response.....	5,000	3.0	35,000	2.3	838,000	2.2
Do exit provisions meet applicable State or local fire protection standards?						
<input type="checkbox"/> Yes.....	148,200	89.7	1,453,000	93.5	36,468,000	93.7
<input type="checkbox"/> No, minor infractions.....	7,700	4.6	51,000	3.3	1,248,000	3.2
<input type="checkbox"/> No, major infractions.....	4,300	2.6	18,000	1.2	474,000	1.2
<input type="checkbox"/> No response.....	5,100	3.1	31,000	2.0	742,000	1.9
Is a sprinkler system or fire detection system provided in high fire hazard areas (<i>basements, storage rooms, etc.</i>)?						
<input type="checkbox"/> Yes.....	31,200	18.9	378,000	24.3	9,713,000	25.0
<input type="checkbox"/> No.....	126,900	76.9	1,126,000	72.5	28,018,000	72.0
<input type="checkbox"/> No response.....	7,000	4.2	49,000	3.2	1,201,000	3.1
Does the electrical system meet usual demands placed upon it during the school day?						
<input type="checkbox"/> Yes.....	151,700	91.8	1,457,000	93.8	36,473,000	93.7
<input type="checkbox"/> No—wiring circuits insufficient.....	7,800	4.7	66,000	4.3	1,736,000	4.5
<input type="checkbox"/> No electric service in building.....	1,000	0.6	2,000	0.1	64,000	0.2
<input type="checkbox"/> No response.....	4,600	2.8	28,000	1.8	659,000	1.7

TABLE 1.—Number and percent of permanent and nonpermanent buildings, and offsite facilities, rooms, and pupils; by type of building characteristic in 50 States, the District of Columbia, and four Outlying Areas: 1964-65—Continued

Characteristic	Total ¹ buildings and rooms in use, and pupils					
	Buildings		Rooms		Pupils ²	
	Number	Percent	Number	Percent	Number	Percent
Is a sufficient amount of nonglare daylight and/or artificial light, uniformly distributed, on desks, chalk-boards, and other pupil-work stations in instructional rooms? (<i>Approximately 30 foot-candles or more.</i>)	<input type="checkbox"/> Completely satisfactory	108,600 65.8	1,083,000 69.7		27,260,000 70.0	
	<input type="checkbox"/> Partially satisfactory	44,300 26.8	390,000 25.1		9,670,000 24.8	
	<input type="checkbox"/> Unsatisfactory	5,300 3.2	36,000 2.3		920,000 2.4	
	<input type="checkbox"/> No response	6,900 4.2	45,000 2.9		1,082,000 2.8	

¹ Item responses do not add to exact totals because of varying inflation factors applied to individual school plants and rounding.

² Pupil enrollment figures are computed on the basis of the average number of pupils per room for each school plant and are prorated to each building

according to the number of instructional rooms in use. One half of kindergarten enrollment counted in accordance with practice of half-day sessions.

³ One-room schools have been excluded from this figure and are presumed to be "yes" answers.

Table 2.—Number and percent of permanent buildings, rooms and pupils by organizational level and by type of building deficiencies for 50 States, the District of Columbia, and four Outlying Areas: 1964-65

[Data for buildings are rounded to nearest 100 and rooms and pupils are rounded to nearest 1,000]

Type of building deficiency	Total						Elementary					
	Buildings		Rooms		Pupils ²		Buildings		Rooms		Pupils ²	
	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent
Grand total¹	165,200	100.0	1,553,000	100.0	38,931,000	100.0	98,300	59.5	794,000	51.1	20,299,000	52.1
Permanent buildings on site	155,400	94.1	1,506,000	97.0	37,695,000	96.8	92,200	55.3	765,000	49.3	19,511,000	50.1
Nonpermanent buildings and offsite buildings	9,800	5.9	47,000	3.1	1,236,000	3.2	6,000	3.6	29,000	1.9	779,000	2.0
Are any indications of structural defects evident? (<i>Bulging, shifting, sagging, cracking, etc., of foundations, walls, roofs, or floors.</i>)	5,400	3.3	43,000	2.8	1,074,000	2.8	2,800	1.7	18,000	1.2	463,000	1.2
<input type="checkbox"/> Extensive, evident for several years.....												
<input type="checkbox"/> Extensive, recently observed.....	600	0.4	4,000	0.3	123,000	0.3	400	0.2	2,000	0.1	61,000	0.2
Does the heating system permit a temperature range of 68°-74° to be maintained in instructional rooms?	10,500	6.4	80,000	5.2	1,942,000	5.0	5,300	3.2	37,000	2.4	912,000	2.3
<input type="checkbox"/> No.....												
Is the fire alarm distinctly different from programs signals, and audible throughout the building?	7,100	4.3	73,000	4.7	1,766,000	4.5	3,600	2.2	32,000	2.1	793,000	2.0
<input type="checkbox"/> No.....												
<input type="checkbox"/> Fire alarm not provided.....	17,100	10.4	59,000	3.8	1,541,000	4.0	11,100	6.7	30,000	1.9	780,000	2.0
Are stairwells and stairways constructed of fire-resistive materials?	18,600	11.2	141,000	9.1	3,147,000	8.1	12,000	7.3	82,000	5.3	1,908,000	4.9
<input type="checkbox"/> No.....												
Are stairways and stairwells properly enclosed so as to separate them from the corridor in order to prevent the spread of smoke or fumes?	30,800	18.6	347,000	22.3	8,417,000	21.6	17,200	10.4	158,000	10.2	3,905,000	10.0
<input type="checkbox"/> No.....												
Do exit provisions meet applicable State or local fire protection standards?	7,000	4.2	49,000	3.2	1,193,000	3.1	3,900	2.4	23,000	1.5	575,000	1.5
<input type="checkbox"/> No, minor infraction(s)												
<input type="checkbox"/> No, major infraction(s)	3,800	2.3	17,000	1.1	440,000	1.1	2,100	1.3	7,000	0.5	193,000	0.5
Is a sprinkler system or fire detection system provided in high fire hazard areas (<i>basements, storage rooms, etc.</i>)?	119,500	72.4	1,093,000	70.4	27,144,000	69.7	71,000	43.0	560,000	36.1	14,159,000	36.4
<input type="checkbox"/> No.....												
Does the electrical system meet usual demands placed upon it during the school day?	7,200	4.4	64,000	4.1	1,671,000	4.3	3,600	2.2	28,000	1.8	741,000	1.9
<input type="checkbox"/> No—wiring circuits insufficient.....												
<input type="checkbox"/> No electric service in building.....	800	0.5	2,000	0.1	51,000	0.1	600	0.4	1,000	0.1	34,000	0.1
Is a sufficient amount of nonglare daylight and/or artificial light, uniformly distributed, on desks, chalk-boards, and other pupil-work stations in instructional rooms? (<i>Approximately 30 foot-candles or more.</i>)	4,500	2.7	33,000	2.1	846,000	2.2	2,600	1.6	18,000	1.1	464,000	1.2
<input type="checkbox"/> Unsatisfactory.....												

See footnotes at end of table.

TABLE 2.—Continued

Type of building deficiency	Secondary						Combined					
	Buildings		Rooms		Pupils ²		Buildings		Rooms		Pupils ²	
	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent
Grand total ¹	33,100	20.0	470,000	30.3	12,055,000	31.0	33,800	20.5	289,000	18.6	6,538,000	16.9
Permanent buildings on site.....	31,100	18.8	459,000	29.6	11,753,000	30.2	32,000	19.4	282,000	18.1	6,428,000	16.5
Nonpermanent buildings and offsite buildings.....	2,000	1.2	11,000	0.8	297,000	0.8	1,800	1.1	7,000	0.4	160,000	0.4
Are any indications of structural defects evident? (<i>Bulging, shifting, sagging, cracking, etc., of founda- tions, walls, roofs, or floors.</i>)	900	0.5	11,000	0.7	279,000	0.7	1,700	1.0	14,000	0.9	332,000	0.9
<input type="checkbox"/> Extensive, evident for several years.....												
<input type="checkbox"/> Extensive, recently ob- served.....	100	0.1	1,000	0.1	39,000	0.1	200	0.1	1,000	0.1	23,000	0.1
Does the heating system permit a temperature range of 68°-74° to be maintained in instructional rooms?	2,900	1.8	26,000	1.7	622,000	1.6	2,300	1.4	18,000	1.2	408,000	1.1
<input type="checkbox"/> No.....												
Is the fire alarm distinctly different from pro- grams signals, and audible throughout the build- ing?	1,400	0.9	20,000	1.3	482,000	1.2	2,100	1.3	22,000	1.4	491,000	1.3
<input type="checkbox"/> No.....												
<input type="checkbox"/> Fire alarm not pro- vided ³	1,100	0.7	8,000	0.5	241,000	0.6	4,900	3.0	21,000	1.4	520,000	1.3
Are stairwells and stairways constructed of fire- resistive materials?	2,300	1.4	22,000	1.4	504,000	1.3	4,200	2.6	37,000	2.4	734,000	1.9
<input type="checkbox"/> No.....												
Are stairways and stairwells properly enclosed so as to separate them from the corridor in order to prevent the spread of smoke or fumes?	6,700	4.1	115,000	7.4	2,887,000	7.4	6,900	4.2	73,000	4.7	1,626,000	4.2
<input type="checkbox"/> No.....												
Do exit provisions meet applicable State or local fire protection standards?	1,200	0.7	13,000	0.8	312,000	0.8	1,800	1.1	13,000	0.8	306,000	0.8
<input type="checkbox"/> No, minor infraction(s)												
<input type="checkbox"/> No, major infraction (s)	500	0.3	4,000	0.2	96,000	0.3	1,200	0.7	6,000	0.4	151,000	0.4
Is a sprinkler system or fire detection system provided in high fire hazard areas (<i>basements, stor- age rooms, etc.</i>)?	23,000	14.0	314,000	20.2	7,927,000	20.4	25,500	15.5	219,000	14.1	5,060,000	13.0
<input type="checkbox"/> No.....												
Does the electrical system meet usual demands placed upon it during the school day?	1,700	1.0	21,000	1.4	575,000	1.5	1,900	1.1	15,000	0.9	356,000	0.9
<input type="checkbox"/> No—wiring circuits in- sufficient.....												
<input type="checkbox"/> No electric service in building.....	(⁴)	0.0	(⁵)	0.0	(⁵)	0.0	200	0.1	(⁵)	0.0	17,000	0.0
Is a sufficient amount of nonglare daylight and/ or artificial light, uniformly distributed, on desks, chalk-boards, and other pupil-work stations in in- structional rooms? (<i>Approximately 30 foot-candles or more.</i>)	900	0.6	7,000	0.5	198,000	0.5	1,000	0.6	8,000	0.5	185,000	0.5
<input type="checkbox"/> Unsatisfactory.....												

¹ Item responses do not add to exact totals because of varying inflation factors applied to individual school plants and because of rounding.

² Pupil enrollment figures computed on the basis of the average number of pupils per room for each plant.

³ One-room schools have been excluded from this figure.

⁴ Less than 50.

⁵ Less than 500.

Table 3.—Summary of deficiencies for all buildings used for instruction purposes in 50 States, the District of Columbia, and four Outlying Areas: 1964-65

[Data for buildings are rounded to nearest 100 and rooms are rounded to nearest 1,000]

Deficiency count	Total buildings		Number and percent of rooms in buildings				Number and percent of buildings by construction date							
			Designed instructional		Makeshift or improvised		Before 1920		1920-1940		After 1940		Unknown	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Grand total¹	164,600	100.0	1,511,000	100.0	40,000	100.0	24,300	100.0	38,900	100.0	96,500	100.0	5,000	100.0
No deficiencies.....	26,900	16.4	301,000	20.0	6,000	15.4	1,900	7.9	4,300	11.1	19,600	20.3	1,100	22.7
No. of deficiencies														
1.....	75,000	45.6	727,000	48.1	16,000	39.5	6,700	27.8	14,300	36.9	52,000	53.9	1,900	38.2
2.....	37,300	22.6	318,000	21.0	9,000	21.9	7,700	31.7	11,300	29.2	17,100	17.8	1,100	22.0
3.....	15,700	9.5	108,000	7.1	5,000	12.8	5,100	20.8	5,300	13.6	4,900	5.1	400	8.9
4.....	6,200	3.7	35,000	2.3	2,000	5.8	1,800	7.5	2,200	5.6	1,900	2.0	200	4.8
5.....	2,400	1.5	16,000	1.1	1,000	3.5	700	2.8	900	2.4	700	0.7	100	1.9
6.....	800	0.5	5,000	0.3	(⁴)	0.7	300	1.1	300	0.8	200	0.2	(²)	1.5
7.....	200	0.1	2,000	0.1	(⁴)	0.4	100	0.4	100	0.3	(²)	(³)	(²)	(³)
8.....	100	(³)	(⁴)	(³)	(⁴)	0.1	(²)	0.1	(²)	0.1	(²)	(³)	(²)	(³)
9.....	(²)	(³)	(⁴)	(³)	(⁴)	0.1	(²)	0.1	(²)	0.1	(²)	(³)	(²)	(³)

Deficiency count	Number and percent of buildings by fire resistant rating							
	Fire resistant		Semi-fire resistant		Combustible		Mixed	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Grand total¹	75,000	100.0	44,200	100.0	32,000	100.0	5,500	100.0
No deficiencies.....	14,800	19.7	6,100	13.8	4,300	13.3	600	11.9
No. of deficiencies								
1.....	41,200	55.0	18,400	41.7	10,000	31.4	2,000	37.2
2.....	14,100	18.8	11,700	26.4	8,100	25.4	1,300	24.4
3.....	3,500	4.7	5,000	11.4	5,500	17.0	900	15.9
4.....	900	1.2	1,900	4.3	2,600	8.1	400	7.2
5.....	400	0.5	800	1.8	1,000	3.1	100	2.4
6.....	100	0.1	200	0.5	400	1.1	(²)	0.5
7.....	(²)	(³)	(²)	0.2	(²)	0.3	(²)	0.4
8.....	(²)	(³)	(²)	(³)	(²)	0.1	(²)	0.1
9.....	(²)	(³)	(²)	(³)	(²)	(³)	(²)	(³)

¹ Columns may not add to exact totals because of varying inflation factors
² Less than 50.
³ Less than one-tenth of 1 percent.
⁴ Less than 500.

Table 4.—Number and percent of plants, rooms, and pupils reported by site characteristics related to health and sanitation in 50 States, the District of Columbia, and four Outlying Areas: 1964-65

[Data for plants are rounded to nearest 100 and rooms and pupils are rounded to nearest 1,000]

Item	Response	Total						Elementary					
		Plants		Rooms		Pupils		Plants		Rooms		Pupils	
		Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent
Total:		87,800	100.0	1,550,000	100.0	40,009,000	100.0	60,600	69.0	793,000	51.2	21,233,000	53.2
Do water pressure and supply at outlets in the building(s) adequately meet local and/or State health department requirements? (It is assumed that water supply meets the usual needs during the school day.)	<input type="checkbox"/> Yes.....	80,000	91.1	1,499,000	96.7	38,651,000	96.6	54,900	62.5	764,000	49.3	20,512,000	51.3
	<input type="checkbox"/> No.....	2,500	2.9	31,000	2.0	850,000	2.1	1,900	2.2	18,000	1.2	509,000	1.3
	<input type="checkbox"/> No water piped to building(s).....	4,600	5.2	9,000	0.6	185,000	0.5	3,400	3.9	7,000	0.4	146,000	0.4
	<input type="checkbox"/> No response.....	700	0.8	12,000	0.8	324,000	0.8	400	0.5	4,000	0.3	116,000	0.3
Do number and distribution of sanitary facilities (e.g. toilets, wash basins, drinking fountains, etc.) meet applicable health requirements?	<input type="checkbox"/> Yes.....	78,500	89.4	1,435,000	92.5	36,834,000	92.1	54,100	61.6	736,000	47.5	19,675,000	49.2
	<input type="checkbox"/> No.....	8,000	9.2	97,000	6.2	2,689,000	6.7	5,700	6.5	50,000	3.2	1,424,000	3.6
	<input type="checkbox"/> No response.....	1,300	1.5	19,000	1.2	486,000	1.2	800	0.9	7,000	0.4	184,000	0.5
Location of toilets.	<input type="checkbox"/> In building(s).....	80,000	91.1	1,521,000	98.1	39,244,000	98.1	54,600	62.2	776,000	50.0	20,801,000	52.0
	<input type="checkbox"/> In privy(ies).....	7,200	8.2	19,000	1.2	518,000	1.3	5,500	6.3	13,000	0.8	358,000	0.9
	<input type="checkbox"/> No response.....	600	0.7	10,000	0.6	247,000	0.6	400	0.5	5,000	0.3	124,000	0.3
Is hot water available at most hand washing lavatories?	<input type="checkbox"/> Yes.....	54,700	62.3	1,059,000	68.3	27,239,000	68.1	36,700	41.8	522,000	33.7	14,032,000	35.1
	<input type="checkbox"/> No.....	31,600	36.0	466,000	30.1	12,136,000	30.3	22,900	26.1	262,000	16.9	7,008,000	17.5
	<input type="checkbox"/> No response.....	1,500	1.7	25,000	1.6	635,000	1.6	900	1.1	9,000	0.6	244,000	0.6

See footnotes at end of table.

TABLE 4.—Continued

Item	Response	Secondary						Combined					
		Plants		Rooms		Pupils		Plants		Rooms		Pupils	
		Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent
Total¹		13,500	15.3	470,000	30.3	12,055,000	30.1	13,700	15.7	233,000	13.6	6,672,000	16.7
Do water pressure and supply at outlets in the building(s) adequately meet local and/or State health department requirements? (<i>It is assumed that water supply meets the usual needs during the school day.</i>)	<input type="checkbox"/> Yes	13,200	15.0	460,000	29.7	11,782,000	29.5	12,000	13.6	275,000	17.7	6,358,000	15.9
	<input type="checkbox"/> No	100	0.2	3,000	0.2	103,000	0.3	500	0.6	9,000	0.6	239,000	0.6
	<input type="checkbox"/> No water piped to building(s)	(²) 100	(³) 0.2	1,000	(³) 0.4	14,000	(³) 0.4	1,100	1.3	2,000	0.1	24,000	0.1
	No response			6,000		157,000		100	0.2	2,000	0.1	51,000	0.1
Do number and distribution of sanitary facilities (<i>e.g. toilets, wash basins, drinking fountains, etc.</i>) meet applicable health requirements?	<input type="checkbox"/> Yes	12,600	14.3	443,000	28.6	11,315,000	28.3	11,800	13.5	256,000	16.5	5,845,000	14.6
	<input type="checkbox"/> No	700	0.8	19,000	1.2	555,000	1.4	1,600	1.9	27,000	1.8	710,000	1.8
	No response	200	0.2	7,000	0.5	186,000	0.5	300	0.3	5,000	0.3	116,000	0.3
Location of toilets.	<input type="checkbox"/> In building(s)	13,300	15.2	466,000	30.0	11,952,000	29.9	12,000	13.7	280,000	18.1	6,493,000	16.2
	<input type="checkbox"/> In privy(ies)	(²) 100	(³) 0.1	1,000	(³) 0.1	20,000	0.1	1,600	1.8	5,000	0.4	140,000	0.4
	No response			3,000	0.2	84,000	0.2	100	0.1	2,000	0.1	38,000	0.1
Is hot water available at most hand washing lavatories?	<input type="checkbox"/> Yes	10,000	11.4	352,000	22.7	8,983,000	22.5	8,000	9.1	155,000	12.0	4,225,000	10.6
	<input type="checkbox"/> No	3,100	3.6	106,000	6.8	2,757,000	6.9	5,500	6.3	99,000	6.4	2,371,000	5.9
	No response	300	0.4	12,000	0.8	315,000	0.8	200	0.3	3,000	0.2	76,000	0.2

¹ Item responses do not add to exact totals because of varying inflation factors applied to individual school plants and because of rounding.² Less than 50.³ Less than one tenth of one percent.

Table 5.—Public school plants, instructional rooms, and pupils enrolled by completion date of original building and selected characteristics for 50 States, the District of Columbia, and four Outlying Areas: 1964-65

[Data for plants are rounded to nearest 100 and rooms and pupils are rounded to nearest 1,000]

Completion date of building and characteristics	Number and percent of—					
	School plants		Instructional rooms		Pupils enrolled	
	Number	Percent	Number	Percent	Number	Percent
All schools, total¹	87,800	100.0	1,550,000	100.0	40,009,000	100.0
<i>Before 1920</i>						
Total²	21,500	24.5	308,000	19.9	7,307,000	19.0
Total combustible³	8,300	9.5	59,000	3.8	1,392,000	3.5
No defects at all	200	0.2	2,000	0.1	43,000	0.1
Only site defects	200	0.2	1,000	0.1	28,000	0.1
Only building defects	3,300	3.8	36,000	2.3	860,000	2.2
Building and site defects	4,700	5.3	21,000	1.3	461,000	1.2
Total noncombustible	13,200	15.0	249,000	16.1	6,215,000	15.5
No defects at all	900	1.0	20,000	1.3	498,000	1.2
Only site defects	100	0.2	3,000	0.2	61,000	0.2
Only building defects	7,900	9.0	153,000	9.8	3,754,000	9.4
Building and site defects	4,200	4.8	74,000	4.8	1,902,000	4.8
<i>1920-1940</i>						
Total²	27,000	30.7	475,000	30.6	11,900,000	29.7
Total combustible	6,100	7.0	54,000	3.5	1,335,000	3.3
No defects at all	100	0.2	2,000	0.1	38,000	0.1
Only site defects	100	0.1	1,000	0.1	25,000	0.1
Only building defects	1,500	1.7	13,000	0.9	309,000	0.8
Building & site defects	4,400	5.0	38,000	2.5	964,000	2.4
Total noncombustible	20,800	23.7	421,000	27.1	10,565,000	26.4
No defects at all	1,600	1.8	40,000	2.6	1,054,000	2.6
Only site defects	400	0.4	9,000	0.6	243,000	0.6
Only building defects	11,000	12.5	236,000	15.2	5,848,000	14.6
Building and site defects	7,800	8.9	136,000	8.8	3,419,000	8.6
<i>After 1940</i>						
Total²	39,300	44.8	767,000	49.5	20,504,000	51.3
Total combustible	4,200	4.8	51,000	3.3	1,426,000	3.6
No defects at all	500	0.6	11,000	0.7	315,000	0.8
Only site defects	200	0.2	3,000	0.2	84,000	0.2
Only building defects	1,400	1.6	17,000	1.1	465,000	1.2
Building and site defects	2,100	2.4	20,000	1.3	562,000	1.4
Total noncombustible	35,100	40.0	716,000	46.2	19,078,000	47.7
No defects at all	5,600	6.4	132,000	8.5	3,522,000	8.8
Only site defects	1,200	1.3	26,000	1.7	743,000	1.9
Only building defects	18,200	20.8	371,000	23.9	9,782,000	24.5
Building and site defects	10,100	11.5	187,000	12.1	5,031,000	12.6

¹ Item responses do not add to exact totals because of varying inflation factors applied to individual school plants and because of rounding.

² Age group of the school plant established by the original building on the plant site.

³ Fire rating of the school plant established by the original building on the plant site.

Table 6.—School plants and pupils enrolled by organizational level and pupil per room interval for 50 States, the District of Columbia, and four Outlying Areas: 1964-65

[Data for plants are rounded to nearest 100 and pupils are rounded to nearest 1,000]

Pupils per room ¹	Number of plants							
	Total ²		Elementary		Secondary		Combined	
	Plants	Pupils	Plants	Pupils	Plants	Pupils	Plants	Pupils
Grand total³.....	87,800	40,011,000	60,600	21,284,000	13,500	12,056,000	13,700	6,672,000
1-9.....	4,100	168,000	1,600	65,000	400	44,000	2,200	60,000
10-14.....	7,100	977,000	4,800	381,000	800	247,000	1,500	350,000
15-19.....	13,100	3,674,000	8,200	1,492,000	2,100	1,042,000	2,800	1,140,000
20-24.....	21,900	9,462,000	15,300	4,920,000	3,500	2,720,000	3,100	1,823,000
25-29.....	23,500	13,084,000	17,800	7,730,000	3,700	3,803,000	2,100	1,550,000
30-34.....	12,100	7,985,000	9,300	4,858,000	1,700	2,340,000	1,000	787,000
35-39.....	3,400	2,820,000	2,000	1,086,000	800	1,250,000	500	484,000
40-44.....	1,300	943,000	800	333,000	200	344,000	300	266,000
45-49.....	500	346,000	300	177,000	100	101,000	100	69,000
50-54.....	200	186,000	100	42,000	(3)	66,000	100	78,000
55-59.....	200	105,000	100	66,000	(3)	20,000	(3)	19,000
60-64.....	100	103,000	100	62,000	(3)	15,000	(3)	26,000
65-69.....	100	48,000	100	24,000	(3)	11,000	(3)	13,000
70 and over.....	100	109,000	100	49,000	(3)	52,000	(3)	8,000

¹ Pupils in nursery and kindergarten are counted as one-half the total number reported in each plant to approximate the practice of providing one-half day instruction for these pupils.

² Columns may not add to exact totals because of varying inflation factors applied to individual school plants and because of rounding.

³ Less than 50.

Table 7.—Median pupil per instructional room in permanent, nonpermanent, and offsite facilities, by organizational level for 50 States, the District of Columbia, and four Outlying Areas: 1964-65

State	All schools	Elementary	Secondary	Combined
Grand total.....	27	27	27	24
50 States and D.C.....	27	27	27	24
Outlying Areas.....	43	47	42	38
Alabama.....	29	30	28	28
Alaska.....	26	25	27	23
Arizona.....	26	26	28	32
Arkansas.....	26	27	27	23
California.....	29	28	31	26
Colorado.....	27	27	27	14
Connecticut.....	24	25	23	22
Delaware.....	25	27	22	24
District of Columbia.....	28	30	26
Florida.....	28	27	31	26
Georgia.....	29	30	28	29
Hawaii.....	27	26	29	27
Idaho.....	25	27	24	25
Illinois.....	26	26	26	23
Indiana.....	27	28	27	23
Iowa.....	23	23	24	21
Kansas.....	23	24	25	16
Kentucky.....	27	27	27	26
Louisiana.....	26	28	28	22
Maine.....	25	26	24	23
Maryland.....	28	30	27	28
Massachusetts.....	25	26	24	24
Michigan.....	28	28	28	28
Minnesota.....	24	26	22	22
Mississippi.....	29	30	26	29
Missouri.....	25	27	26	21
Montana.....	24	24	27	18
Nebraska.....	22	24	23	17
Nevada.....	27	26	29	20
New Hampshire.....	25	26	24	22
New Jersey.....	25	25	26	23
New Mexico.....	26	26	26	18
New York.....	26	25	28	25
North Carolina.....	27	27	27	26
North Dakota.....	22	24	26	20
Ohio.....	27	27	27	25
Oklahoma.....	24	27	24	19
Oregon.....	24	24	25	20
Pennsylvania.....	27	27	27	26
Rhode Island.....	26	27	26	20
South Carolina.....	29	30	26	29
South Dakota.....	21	22	28	20
Tennessee.....	27	28	27	27
Texas.....	25	26	25	22
Utah.....	28	28	28	23
Vermont.....	23	24	21	21
Virginia.....	28	29	26	27
Washington.....	25	26	24	20
West Virginia.....	27	26	30	25
Wisconsin.....	25	25	27	23
Wyoming.....	23	25	22	20
American Samoa.....	31	34	27	41
Canal Zone.....	24	24	22	29
Guam.....	31	31	31	22
Puerto Rico.....	44	48	43	39

Table 8.—Number of school plants requiring additional rooms for instructional use as determined by varying measures of pupil accommodation and according to local opinion of rooms needed to eliminate overcrowding in the 50 States, the District of Columbia, and four Outlying Areas: 1964-65

[Data for plants are rounded to nearest 100 and rooms are rounded to nearest 1,000]

Pupil accommodation instructional room breakdown	Level I		Level II		Level III		Local appraisal of overcrowding	
	Elementary—25.0 per room Secondary—20.0 per room		Elementary—27.4 per room Secondary—27.5 per room		Elementary—30.0 per room Secondary—30.0 per room			
	Plants	Rooms	Plants	Rooms	Plants	Rooms	Plants	Rooms
ALL SCHOOLS								
Instructional rooms existing, total ¹	87,800	1,551,000	87,800	1,551,000	87,800	1,551,000	87,800	1,551,000
Sufficient for need.....	44,800	608,000	61,600	1,005,000	72,600	1,237,000	65,100	1,034,000
Insufficient for need.....	43,000	942,000	26,200	545,000	15,200	314,000	22,700	517,000
Number of rooms needed.....	43,000	298,000	26,200	107,000	15,200	57,000	22,700	109,000
1.....	9,900	10,000	9,200	9,000	6,300	6,000	3,200	3,000
2.....	6,800	14,000	5,200	10,000	2,800	6,000	5,100	10,000
3.....	4,800	14,000	3,200	10,000	1,600	5,000	3,400	10,000
4.....	3,600	14,000	1,900	8,000	1,000	4,000	3,300	13,000
5-9.....	9,200	60,000	4,300	27,000	2,200	15,000	5,400	34,000
10-14.....	3,400	39,000	1,300	15,000	700	8,000	1,400	15,000
15-19.....	1,800	30,000	700	12,000	400	6,000	400	6,000
20 or more.....	3,600	117,000	500	16,000	200	7,000	500	16,000
ELEMENTARY SCHOOLS								
Instructional rooms existing, total ¹	60,600	793,000	60,600	793,000	60,600	793,000	60,600	793,000
Sufficient for need.....	32,900	365,000	41,600	497,000	50,000	634,000	47,400	576,000
Insufficient for need.....	27,700	428,000	19,000	297,000	10,600	159,000	13,300	217,000
Number of rooms needed.....	27,700	98,000	19,000	54,000	10,600	27,000	13,300	47,000
1.....	8,600	9,000	8,100	8,000	5,400	5,000	2,600	3,000
2.....	5,600	11,000	4,200	8,000	2,100	4,000	3,900	8,000
3.....	3,800	11,000	2,300	7,000	1,100	3,000	2,200	7,000
4.....	2,800	11,000	1,400	6,000	700	3,000	1,700	7,000
5-9.....	5,300	33,000	2,400	15,000	1,000	6,000	2,300	14,000
10-14.....	1,100	12,000	400	4,000	200	2,000	300	4,000
15-19.....	300	5,000	200	3,000	100	2,000	100	2,000
20 or more.....	200	6,000	100	2,000	(³)	1,000	100	3,000
SECONDARY SCHOOLS								
Instructional rooms existing, total ¹	13,500	470,000	13,500	470,000	13,500	470,000	13,500	470,000
Sufficient for need.....	3,600	96,000	8,900	288,000	10,700	359,000	8,400	283,000
Insufficient for need.....	9,800	374,000	4,500	181,000	2,700	110,000	5,100	186,000
Number of rooms needed.....	9,800	155,000	4,500	36,000	2,700	20,000	5,100	40,000
1.....	600	1,000	700	1,000	500	(²)	200	(²)
2.....	500	1,000	500	1,000	400	1,000	500	1,000
3.....	500	2,000	500	1,000	200	1,000	600	2,000
4.....	400	1,000	300	1,000	200	1,000	700	3,000
5-9.....	2,400	17,000	1,300	8,000	700	5,000	1,800	12,000
10-14.....	1,500	18,000	600	7,000	400	4,000	800	9,000
15-19.....	1,200	19,000	300	6,000	100	3,000	200	3,000
20 or more.....	2,800	96,000	300	11,000	200	5,000	400	11,000
COMBINED SCHOOLS								
Instructional rooms existing, total ¹	13,700	288,000	13,700	288,000	13,700	288,000	13,700	288,000
Sufficient for need.....	8,400	149,000	11,000	221,000	11,800	244,000	9,400	175,000
Insufficient for need.....	5,300	139,000	2,700	67,000	1,900	44,000	4,300	113,000
Number of rooms needed.....	5,300	44,000	2,700	17,000	1,900	10,000	4,300	22,000
1.....	700	1,000	400	(²)	400	(²)	400	(²)
2.....	600	1,000	400	1,000	300	1,000	700	1,000
3.....	500	2,000	400	1,000	200	1,000	700	2,000
4.....	400	2,000	200	1,000	200	1,000	800	3,000
5-9.....	1,500	10,000	600	4,000	500	3,000	1,300	8,000
10-14.....	700	8,000	300	4,000	200	2,000	300	3,000
15-19.....	300	6,000	200	3,000	100	2,000	100	2,000
20 or more.....	500	15,000	100	2,000	(³)	1,000	100	2,000

¹ Columns may not add to exact totals because of varying inflation factors applied to individual school plants and because of rounding.

² Less than 500.

³ Less than 50.

Table 9.—Number and percent of school plants and enrollments¹ where local school officials indicated the school plants are overcrowded and special instructional rooms are needed; reported by organizational level for 50 States, the District of Columbia, and four Outlying Areas: 1964-65

[Data for plants are rounded to nearest 100 and pupils are rounded to nearest 1,000]

Type of special rooms needed when school plant is overcrowded	All school types			Elementary schools			Secondary schools ¹			Combined schools						
	Plants		Pupils	Plants		Pupils	Plants		Pupils	Plants		Pupils				
	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent				
Grand total²	87,300	100.0	40,009,000	100.0	60,600	69.0	21,283,000	53.2	13,500	15.3	12,055,000	30.1	13,700	15.7	6,672,000	16.7
None.....	68,200	77.7	27,082,000	67.7	49,700	56.6	15,885,000	39.7	8,800	10.0	7,216,000	18.0	9,800	11.2	3,982,000	10.0
Science laboratory.....	5,500	6.3	4,588,000	11.5	1,500	1.8	805,000	2.0	2,300	2.7	2,591,000	6.5	1,700	1.9	1,191,000	3.0
Language laboratory.....	3,600	4.2	3,061,000	7.7	500	0.6	278,000	0.7	1,900	2.1	1,831,000	4.6	1,300	1.5	952,000	2.4
Industrial, vocational, or technical shop.....	4,300	4.9	3,646,000	9.1	400	0.5	188,000	0.5	2,200	2.6	2,245,000	5.6	1,700	1.9	1,213,000	3.0
Arts or crafts laboratory.....	5,000	5.7	3,939,000	9.8	2,200	2.5	1,288,000	3.2	1,700	1.9	1,797,000	4.5	1,100	1.3	854,000	2.1
Music studio.....	7,600	8.7	5,174,000	12.9	4,100	4.7	2,149,000	5.4	1,900	2.1	1,795,000	4.5	1,700	1.9	1,230,000	3.1
Home economics laboratory.....	2,200	2.5	2,043,000	5.1	300	0.4	201,000	0.5	1,000	1.2	1,209,000	3.0	800	1.0	633,000	1.6
Kindergarten.....	3,200	3.6	1,891,000	4.7	2,600	2.9	1,442,000	3.6	(³)	(⁴)	13,000	(⁴)	600	0.7	436,000	1.1
Other.....	12,400	14.1	8,263,000	20.7	7,500	8.6	3,730,000	9.3	2,700	3.1	3,030,000	7.6	2,200	2.5	1,503,000	3.8

¹ Number of pupils reported is the enrollment in each school plant indicated as being overcrowded.

^aItem responses do not add to exact totals because of varying inflation factors

applied to individual school plants and because of rounding.

³ Less than 50.

⁴ Less than one-tenth of 1 percent.

APPENDIXES

APPENDIX A

Sampling Procedure

Universe of Inquiry

The universe of inquiry was 95,306 public school plants in the 50 States, District of Columbia and outlying areas generated by the *National Inventory of School Facilities and Personnel*¹ master tape file with subsequent updating in 35 States to 1964.

Sample Design and Selection

The determination of the sample size, 20 percent of the universe, was based on the consideration that a critical characteristic was the proportion of classrooms with large pupil-room ratios. Previous studies using a mixture of State-wide surveys and estimates indicated the proportion was about 4 percent in the Nation.²

The sample size for each State was obtained by using a binomial probability distribution with an estimated adjustment for the effect of clustering. The precision required for estimates from the sample for each State was 2 percentage points—that is a relative error of 50 percent of the assumed proportion at the 2 sigma-level of confidence which is 95 percent.

The number of rooms in the sample was then allocated

to the 27 cells in the sample design in the same proportion as in the updated inventory file. The number of plants in the sample was determined by dividing the number of rooms in the sample in a stratum by the average number of rooms per plant in the population in that stratum. Sampling fractions were established for each stratum and the plants to be included in the sample were, after a random start, selected in a systematic manner. Nearly 20,000 plants of the 95,306 in the updated public school universe were included in the sample. The distribution of school plants for the Nation is presented in table A along with the number selected in the sample survey.

Survey Returns

Forms returned to the processing center up to February 4, 1965 are included in the study. The percent of 1964-65 survey returns in table A includes those returns reporting the school plant as no longer in use.

Twenty States returned more than 95 percent of the forms sent them. South Dakota and Nebraska had the largest sample selection, because the number of rooms in the average school plant was small. These two States conducted the largest survey and had the greatest number of returned forms. Every State, the District of Columbia, and four outlying areas participated in this survey of schoolhousing and provided an overall response rate of 90 percent for the 20,020 school plants selected in the sample.

¹ George J. Collins, *National Inventory of School Facilities and Personnel, Spring 1962* (OE-21026). U.S. Department of Health, Education, and Welfare, Office of Education, Washington: U.S. Government Printing Office, 1964.

² Carol Joy Hobson and Samuel Schloss, *Enrollment, Teachers, and Schoolhousing, Fall 1963* (Circular No. 735). U.S. Dept. of Health, Education, and Welfare, Office of Education, Washington: U.S. Government Printing Office, 1964, p. 35.

Table A.—Universe of school plants from the National Inventory of School Facilities, 1962–64; the School Plant Survey Sample, 1964; percent of sample returns; and adjusted universe of school plants

State	National Inventory of School Facilities 1962-64	School Plant Survey Sample, 1964		
	Universe of school plants	Number of plants selected from universe to be sampled	Percent of sample returned	Adjusted universe of school plants
Grand total	95,306	20,020	89.7	87,811
50 States and D.C.	93,362	19,204	90.2	85,928
Outlying Areas	1,944	816	75.9	1,883
Alabama.....	2,133	433	91.7	1,818
Alaska.....	192	169	92.9	189
Arizona.....	624	217	86.2	601
Arkansas.....	1,026	350	71.7	921
California.....	5,927	369	93.5	5,831
Colorado.....	1,152	353	92.6	1,081
Connecticut.....	985	267	94.4	941
Delaware.....	174	122	82.8	163
District of Columbia.....	172	117	100.0	172
Florida.....	1,671	290	97.2	1,608
Georgia.....	1,993	338	86.4	1,870
Hawaii.....	209	132	98.5	198
Idaho.....	467	244	93.0	446
Illinois.....	4,344	402	84.8	4,182
Indiana.....	2,145	307	84.7	2,083
Iowa.....	2,050	424	95.5	1,843
Kansas.....	2,317	550	88.0	2,090
Kentucky.....	2,560	611	83.5	1,899
Louisiana.....	1,436	295	82.0	1,432
Maine.....	1,029	501	94.8	933
Maryland.....	1,133	274	98.9	1,125
Massachusetts.....	2,019	351	91.5	1,933
Michigan.....	4,542	458	94.5	3,987
Minnesota.....	2,528	472	94.3	2,298
Mississippi.....	1,016	269	88.1	979
Missouri.....	2,503	433	99.3	2,122
Montana.....	1,173	562	85.4	1,038
Nebraska.....	3,108	1,027	75.7	2,543
Nevada.....	208	156	100.0	199
New Hampshire.....	422	279	99.3	407
New Jersey.....	2,083	308	97.1	2,023
New Mexico.....	632	286	94.1	586
New York.....	4,207	244	92.6	4,052
North Carolina.....	2,181	316	99.7	2,099
North Dakota.....	968	548	85.8	831
Ohio.....	3,743	320	98.4	3,627
Oklahoma.....	2,007	471	87.9	1,824
Oregon.....	1,250	371	97.8	1,190
Pennsylvania.....	4,753	402	99.5	4,458
Rhode Island.....	357	223	96.9	346
South Carolina.....	1,220	314	86.0	1,178
South Dakota.....	2,305	1,100	78.9	1,872
Tennessee.....	2,340	455	93.8	2,145
Texas.....	4,374	343	95.9	4,132
Utah.....	554	250	96.0	523
Vermont.....	503	365	85.5	483
Virginia.....	2,164	365	93.4	1,803
Washington.....	1,543	329	98.2	1,487
West Virginia.....	2,227	685	97.7	1,802
Wisconsin.....	2,291	451	88.0	2,149
Wyoming.....	402	286	90.2	386
American Samoa.....	49	49	100.0	49
Canal Zone.....	21	21	100.0	20
Guam.....	26	26	88.5	17
Puerto Rico.....	1,848	720	73.1	1,797
Virgin Islands.....	NA	NA	NA	NA

¹ Universe of school plants adjusted upon the basis of sample returns reporting school plants no longer in use for instructional purposes.

NA—Not Available

APPENDIX B

State Tables

Information on school facilities in each State has been prepared in the same table formats as those prepared for the Nation. There are 19 basic tables and reports. Each of the 19 table formats is available in 57 separate tables. The components of these 57 tables are each of the 50 States, the District of Columbia, the four outlying areas, totals for the 50 States and District of

Columbia combined, and aggregate totals for the 50 States, the District of Columbia and outlying areas. These tables have been returned to the respective educational agencies for their review and use. Data on selected characteristics of school facilities are reported by State in the following six tables.

Table 10.—Number and percent of instructional rooms by age and fire rating of permanent buildings, and instructional rooms in nonpermanent buildings and in offsite facilities, by State: 1964-65

[Data for rooms are rounded to nearest 100]

State	Number of instructional rooms in public school plants ¹	Instructional rooms ² in permanent buildings by completion date and combustibility								Instructional rooms ² in—			
		Before 1920 and combustible		After 1920 and combustible		Before 1920 and noncombustible		After 1920 and noncombustible		Nonpermanent buildings		Offsite facilities	
		Number	Per-cent	Number	Per-cent	Number	Per-cent	Number	Per-cent	Number	Per-cent	Number	Per-cent
Grand total¹.....	1,550,500	41,100	2.7	96,200	6.2	175,000	11.3	1,193,900	77.0	31,900	2.1	12,300	0.8
50 States & D.C.....	1,536,500	41,000	2.7	94,100	6.1	174,100	11.3	1,184,500	77.1	31,000	2.0	11,700	0.8
Outlying Areas.....	14,000	200	1.4	2,200	15.7	800	5.7	9,400	67.1	800	5.7	600	4.3
Alabama.....	28,000	600	2.3	4,700	16.9	800	2.8	21,200	75.5	500	1.9	100	0.5
Alaska.....	1,900	(³)	0.6	500	29.5	0	0.0	1,200	66.7	(³)	2.1	(³)	1.1
Arizona.....	13,700	100	0.8	300	2.2	1,200	8.8	11,700	85.0	400	2.9	(³)	0.3
Arkansas.....	15,000	100	0.6	1,800	11.8	900	5.8	11,800	78.9	300	2.1	100	0.7
California.....	130,700	1,400	1.1	32,300	24.7	3,100	2.3	80,600	61.7	12,600	9.6	800	0.6
Colorado.....	18,100	600	3.5	500	2.9	2,000	10.9	14,600	80.5	300	1.9	100	0.3
Connecticut.....	21,000	500	2.4	300	1.3	3,200	15.1	16,800	80.1	100	0.5	100	0.6
Delaware.....	4,100	100	1.8	(³)	1.1	(³)	0.3	3,900	95.9	(³)	0.1	(³)	0.8
Dist. of Col.	4,900	0	0.0	0	0.0	900	19.4	3,900	79.8	(³)	0.7	(³)	0.0
Florida.....	39,300	600	1.5	1,400	3.5	1,800	4.5	32,800	83.4	2,500	6.4	300	0.7
Georgia.....	37,200	500	1.3	2,500	6.7	1,600	4.4	32,000	86.0	300	0.7	300	0.8
Hawaii.....	5,800	300	4.5	1,700	29.8	100	2.1	3,400	59.1	200	4.1	(³)	0.3
Idaho.....	6,900	400	5.9	400	5.3	1,100	16.0	4,800	70.4	(³)	0.5	100	1.8
Illinois.....	76,000	2,900	3.8	300	0.4	13,700	18.0	58,200	76.6	300	0.4	600	0.8
Indiana.....	40,400	800	2.0	200	0.5	8,100	20.1	30,800	76.4	300	0.8	100	0.3
Iowa.....	28,500	1,900	6.5	500	1.9	6,600	23.2	19,000	66.8	100	0.3	400	1.2
Kansas.....	25,200	400	1.7	500	1.9	3,100	12.5	20,500	81.4	500	1.8	200	0.8
Kentucky.....	23,400	500	2.1	1,000	4.5	2,200	9.5	18,900	80.8	600	2.6	100	0.6
Louisiana.....	32,000	500	1.5	2,500	7.8	1,600	5.0	25,800	80.7	1,200	3.9	400	1.2
Maine.....	8,300	1,200	14.8	1,900	22.5	800	10.2	4,200	51.0	(³)	(³)	100	1.5
Maryland.....	25,700	1,000	3.9	800	3.1	1,700	6.7	21,500	83.9	400	1.5	200	0.9
Massachusetts.....	36,400	2,000	5.4	900	2.6	8,700	24.0	24,300	66.7	200	0.4	300	0.9
Michigan.....	64,500	1,900	2.9	700	1.1	6,100	9.5	55,300	85.7	200	0.3	400	0.6
Minnesota.....	33,000	2,300	7.1	800	2.5	4,400	13.3	25,000	75.8	100	0.3	300	0.9
Mississippi.....	20,900	(³)	0.1	1,100	5.3	500	2.4	18,800	90.0	300	1.2	200	1.0
Missouri.....	34,100	700	2.0	1,000	2.9	4,900	14.5	26,800	78.7	200	0.6	400	1.3
Montana.....	8,600	500	6.0	800	8.8	1,300	15.3	5,800	67.4	100	0.7	200	1.8
Nebraska.....	17,300	1,400	8.1	800	4.8	3,700	21.4	11,200	64.4	100	0.7	100	0.5
Nevada.....	3,500	100	2.7	100	3.5	200	6.1	3,000	85.3	100	2.2	(³)	0.1
New Hampshire.....	5,200	500	10.0	200	3.3	800	14.8	3,700	71.1	(³)	0.1	(³)	0.8
New Jersey.....	46,000	1,400	3.0	300	0.6	8,900	19.4	35,200	76.5	(³)	0.1	200	0.5
New Mexico.....	10,200	100	0.7	300	2.7	500	4.5	9,000	88.4	400	3.5	(³)	0.2
New York.....	118,100	2,100	1.8	500	0.4	17,600	14.9	96,100	81.3	500	0.4	1,400	1.2
North Carolina.....	45,100	600	1.4	3,900	8.8	2,200	4.8	37,500	83.2	800	1.8	100	0.2
North Dakota.....	7,400	500	7.4	400	5.7	1,200	16.8	5,000	67.9	(³)	0.6	100	1.7
Ohio.....	83,200	800	1.0	100	0.1	14,800	17.8	66,300	79.7	200	0.3	1,000	1.2
Oklahoma.....	25,800	300	1.3	1,000	4.0	2,300	9.0	21,000	81.4	800	3.0	300	1.3
Oregon.....	18,900	600	3.1	5,400	28.5	1,200	6.6	11,400	60.4	200	1.1	(³)	0.3
Pennsylvania.....	79,500	2,100	2.6	800	1.0	16,100	20.2	59,700	75.1	400	0.6	400	0.5
Rhode Island.....	5,900	600	9.5	200	3.9	1,000	16.2	4,200	70.3	0	0.0	(³)	0.2
South Carolina.....	23,200	300	1.2	1,700	7.2	1,200	5.3	19,700	84.7	300	1.4	(³)	0.2
South Dakota.....	8,600	1,100	13.0	900	10.6	1,400	16.9	4,900	56.6	100	1.7	100	1.3
Tennessee.....	31,400	600	2.0	4,500	14.3	1,800	5.7	24,000	76.4	400	1.4	(³)	0.2
Texas.....	92,000	400	0.4	4,300	4.7	5,200	5.7	78,400	85.2	2,900	3.1	800	0.9
Utah.....	10,100	400	3.6	300	3.0	1,700	16.4	7,700	76.5	(³)	0.3	(³)	0.2
Vermont.....	3,700	700	19.3	300	7.9	500	14.7	2,100	56.5	(³)	(³)	100	1.9
Virginia.....	34,500	1,000	2.9	2,000	5.8	2,000	5.8	28,700	83.4	600	1.8	100	0.4
Washington.....	29,200	700	2.3	3,900	13.5	2,100	7.3	21,300	73.0	1,000	3.5	100	0.5
West Virginia.....	17,100	1,100	6.7	1,900	10.9	2,200	12.7	11,600	67.9	100	0.8	200	1.0
Wisconsin.....	32,600	1,800	5.6	500	1.5	4,500	13.8	25,300	77.8	100	0.3	400	1.2
Wyoming.....	4,500	100	1.9	200	5.5	400	8.6	3,700	82.8	(³)	0.7	(³)	0.5
American Samoa.....	200	0	0.0	(³)	0.5	0	0.0	100	54.8	100	42.4	(³)	2.3
Canal Zone.....	500	0	0.0	100	15.3	100	10.5	400	71.6	(³)	0.8	(³)	1.8
Guam.....	400	0	0.0	(³)	9.6	0	0.0	300	80.2	(³)	10.3	0	0.0
Puerto Rico.....	12,900	200	1.4	2,000	15.8	800	6.0	8,600	66.5	700	5.4	600	4.9

¹ Columns and rows may not add to exact totals because of varying inflation factors applied to individual school plants and because of rounding.

² Includes improvised or makeshift rooms used for instructional purposes.

³ Less than 50.

Table 11.—Number of rooms used for instruction according to independently selected frequencies of site or building deficiencies or both reported, by State: 1964-65

[Data for rooms are rounded to nearest 100]

State	Number of instructional rooms ¹	Instructional rooms ² —					
		In buildings with fewer than two deficiencies reported		In buildings with more than four deficiencies reported		On sites and in buildings reported to have both site and building deficiencies	
		Number	Percent	Number	Percent	Number	Percent
Grand total¹.....	1,550,500	1,037,000	66.9	69,200	4.5	476,500	30.7
50 States and D.C.....	1,536,500	1,035,700	67.4	64,600	4.2	463,000	30.1
Outlying Areas.....	14,000	1,300	9.1	4,600	32.9	13,500	96.9
Alabama.....	28,000	11,700	41.9	3,600	12.8	23,700	84.5
Alaska.....	1,800	1,300	68.0	100	7.3	300	14.1
Arizona.....	13,700	10,400	75.5	500	3.3	6,500	47.5
Arkansas.....	15,000	8,500	56.9	1,700	11.2	11,400	75.9
California.....	130,700	111,300	85.2	2,500	1.9	62,600	47.9
Colorado.....	18,100	13,800	76.0	800	4.6	1,600	8.9
Connecticut.....	21,000	19,700	94.1	0	0.0	1,300	6.0
Delaware.....	4,100	3,700	89.5	(³) 0	0.3	400	9.3
District of Columbia.....	4,900	3,800	76.7	200	4.0	700	14.4
Florida.....	39,300	26,900	68.4	1,700	4.2	26,700	68.0
Georgia.....	37,200	26,900	72.4	2,100	5.6	20,200	54.4
Hawaii.....	5,800	2,100	35.9	300	4.9	5,800	99.9
Idaho.....	6,900	2,600	38.5	1,300	19.3	1,200	18.2
Illinois.....	76,000	51,300	67.6	2,400	3.2	8,900	11.8
Indiana.....	40,400	23,800	58.9	2,100	5.2	4,300	10.6
Iowa.....	28,500	16,400	57.7	6,900	24.2	4,300	15.2
Kansas.....	25,200	16,900	67.1	600	2.4	3,300	13.0
Kentucky.....	23,400	12,300	52.6	3,200	13.7	8,900	37.9
Louisiana.....	32,000	22,900	71.7	1,400	4.4	20,300	63.3
Maine.....	8,300	4,800	57.8	400	4.9	1,700	20.9
Maryland.....	25,700	16,600	64.7	500	2.1	4,400	17.2
Massachusetts.....	36,400	29,700	81.7	800	2.3	5,900	16.1
Michigan.....	64,600	47,400	73.4	1,900	3.0	3,800	5.9
Minnesota.....	33,100	19,600	59.5	1,300	4.0	2,800	8.4
Mississippi.....	20,900	11,000	52.6	800	3.6	14,500	69.1
Missouri.....	34,100	17,200	50.4	3,100	9.2	6,900	20.3
Montana.....	8,600	4,300	49.7	600	7.5	1,100	12.9
Nebraska.....	17,300	11,300	65.3	400	2.4	2,700	15.6
Nevada.....	3,500	2,900	82.4	100	2.3	100	2.8
New Hampshire.....	5,200	3,300	63.9	100	2.8	800	14.6
New Jersey.....	46,000	39,100	85.1	600	1.3	6,700	14.6
New Mexico.....	10,200	7,200	70.4	200	1.5	3,000	29.5
New York.....	118,100	88,100	74.5	1,400	1.2	12,500	10.6
North Carolina.....	45,100	30,500	67.5	1,900	4.3	31,100	69.0
North Dakota.....	7,400	3,700	49.8	600	7.4	900	12.7
Ohio.....	83,200	56,000	67.3	1,700	2.0	8,100	9.7
Oklahoma.....	25,800	11,800	45.8	1,800	6.9	12,100	47.1
Oregon.....	18,900	13,200	70.0	500	2.9	1,100	5.8
Pennsylvania.....	79,500	66,100	83.1	800	1.1	7,100	8.9
Rhode Island.....	5,900	4,900	83.0	100	1.5	1,000	17.6
South Carolina.....	23,200	15,600	67.3	400	1.6	15,800	68.3
South Dakota.....	8,600	4,600	54.2	600	6.5	2,600	30.8
Tennessee.....	31,400	5,200	16.7	3,600	11.5	19,100	60.9
Texas.....	92,000	60,100	65.3	2,800	3.0	57,600	62.6
Utah.....	10,100	5,200	51.9	600	6.0	1,100	11.3
Vermont.....	3,700	2,100	55.6	300	8.6	600	16.8
Virginia.....	34,500	18,300	53.2	1,200	3.4	15,100	43.9
Washington.....	29,200	20,000	68.4	1,400	4.9	2,000	6.8
West Virginia.....	17,100	6,800	39.5	1,200	7.3	5,500	31.9
Wisconsin.....	32,600	20,200	62.2	1,100	3.2	1,900	5.8
Wyoming.....	4,500	2,500	55.1	400	8.3	700	16.0
American Samoa.....	200	100	29.6	100	49.2	100	82.7
Canal Zone.....	500	400	74.2	(³) 0	0.8	500	97.2
Guam.....	400	100	21.6	100	14.0	300	78.9
Puerto Rico.....	12,900	800	5.8	4,400	34.5	12,600	97.6

¹ Columns may not add to exact totals because of varying inflation factors applied to individual school plants and because of rounding.

² Includes improvised or makeshift rooms used for instructional purposes.

³ Less than 50.

NOTE:—Data do not add across to number of instruction rooms because of duplication.

Table 12.—Number and percent of pupils in public school plants with deficiencies in water and sanitary facilities, by State: 1964-65

[Data for pupils are rounded to nearest 100]

State	Pupils enrolled at school plants where—									
	Water pressure and supply at outlets in buildings do not meet local or State Health requirements		No water is piped into building or buildings		Number and distribution of sanitary facilities do not meet applicable health requirements		Toilets are located in outdoor privies		Hot water is not available at most hand washing lavatories	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Grand total¹.....	850,400	2.1	184,700	0.5	2,689,400	6.7	518,400	1.3	12,136,200	30.3
50 States and D.C.....	707,200	1.3	132,500	0.3	2,315,300	5.9	248,400	1.0	11,573,300	29.4
Outlying Areas.....	143,200	24.3	52,200	8.9	374,100	63.6	270,000	45.9	562,900	95.7
Alabama.....	50,400	6.7	13,300	1.8	139,300	18.6	29,300	3.9	649,500	86.9
Alaska.....	2,600	6.0	700	1.6	3,900	9.1	1,100	2.5	2,100	4.8
Arizona.....	(²)	(³)	(²)	(³)	16,600	4.7	100	(³)	194,800	55.3
Arkansas.....	17,400	4.8	1,700	0.5	47,900	13.4	4,600	1.3	274,100	76.5
California.....	29,300	0.8	0	0.0	179,200	4.8	16,700	0.4	2,102,500	55.8
Colorado.....	5,300	1.2	300	0.1	10,100	2.2	300	0.1	22,000	4.8
Connecticut.....	2,600	0.5	0	0.0	10,200	2.0	0	0.0	47,800	9.3
Delaware.....	0	0.0	0	0.0	1,100	1.1	0	0.0	8,600	8.7
District of Columbia.....	2,700	2.0	0	0.0	22,800	16.6	0	0.0	7,200	5.2
Florida.....	7,500	0.7	500	0.1	66,000	6.1	11,900	1.1	773,700	71.6
Georgia.....	23,200	2.3	700	0.1	45,100	4.4	1,400	0.1	611,800	59.5
Hawaii.....	2,500	1.6	100	0.1	3,900	2.5	3,100	2.0	155,400	100.0
Idaho.....	3,000	1.9	1,100	0.7	20,400	12.7	(³)	(³)	8,300	5.2
Illinois.....	20,300	1.0	5,100	0.3	77,500	4.0	1,000	0.1	153,500	7.9
Indiana.....	20,400	1.9	2,900	0.3	65,900	6.3	3,000	0.3	66,600	6.3
Iowa.....	10,300	1.6	1,600	0.3	54,900	8.5	2,000	0.3	63,100	9.7
Kansas.....	16,100	3.0	1,500	0.3	18,800	3.5	1,900	0.4	40,700	7.6
Kentucky.....	37,200	6.1	14,500	2.4	104,400	17.2	33,500	5.5	183,000	30.1
Louisiana.....	13,600	1.8	900	0.1	38,000	4.9	13,600	1.8	516,200	67.2
Maine.....	3,800	1.9	1,500	0.8	10,300	5.1	1,500	0.7	38,800	19.1
Maryland.....	19,100	2.7	0	0.0	48,900	6.8	0	0.0	137,200	19.1
Massachusetts.....	11,400	1.3	0	0.0	31,400	3.5	0	0.0	134,300	15.0
Michigan.....	5,400	0.3	8,100	0.5	47,900	2.7	400	(³)	52,400	2.9
Minnesota.....	5,300	0.7	10,100	1.3	44,500	5.7	5,000	0.6	17,400	2.2
Mississippi.....	10,700	1.9	1,700	0.3	25,400	4.5	4,900	0.9	398,300	69.7
Missouri.....	13,100	1.6	3,300	0.4	68,700	8.4	6,900	0.8	104,700	12.8
Montana.....	6,600	3.7	1,300	0.8	10,500	5.9	1,800	1.0	3,500	2.0
Nebraska.....	3,300	1.0	7,900	2.3	19,900	5.7	10,800	3.1	31,000	8.9
Nevada.....	200	0.3	(²)	(³)	1,100	1.2	100	0.1	800	0.9
New Hampshire.....	700	0.6	0	0.0	5,800	4.7	0	0.0	14,400	11.6
New Jersey.....	6,400	0.6	3,000	0.3	32,700	2.8	0	0.0	190,300	16.4
New Mexico.....	4,500	1.9	200	0.1	22,400	9.2	500	0.2	57,100	23.6
New York.....	69,300	2.2	0	0.0	208,100	6.6	0	0.0	158,400	5.1
North Carolina.....	57,300	5.0	0	0.0	113,800	9.9	12,500	1.1	789,500	68.9
North Dakota.....	1,200	0.8	3,000	2.0	7,800	5.1	2,800	1.9	6,800	4.5
Ohio.....	40,900	1.9	4,800	0.2	106,600	4.9	1,200	0.1	113,500	5.2
Oklahoma.....	14,000	2.5	100	(³)	49,700	8.7	5,800	1.0	255,300	44.8
Oregon.....	1,300	0.3	0	0.0	19,400	4.5	100	(³)	6,300	1.5
Pennsylvania.....	23,500	1.1	5,000	0.2	67,500	3.2	12,500	0.6	134,000	6.4
Rhode Island.....	100	0.1	0	0.0	9,100	6.0	0	0.0	30,400	20.0
South Carolina.....	6,700	1.1	1,400	0.2	30,300	4.8	1,500	0.2	465,600	74.1
South Dakota.....	5,400	3.2	11,300	6.8	13,700	8.2	12,500	7.5	31,700	19.1
Tennessee.....	25,800	3.1	9,000	1.1	120,000	14.5	17,800	2.2	493,900	59.5
Texas.....	41,600	1.9	0	0.0	91,100	4.2	0	0.0	1,455,300	67.1
Utah.....	6,600	2.4	100	(³)	19,600	7.3	100	(³)	8,700	3.2
Vermont.....	2,100	2.6	900	0.5	6,700	8.2	400	0.5	10,000	12.3
Virginia.....	26,300	2.8	7,400	0.8	29,100	3.1	10,400	1.1	405,500	43.8
Washington.....	6,500	0.9	(²)	(³)	26,300	3.7	(²)	(³)	16,400	2.3
West Virginia.....	19,600	4.5	6,100	1.4	67,900	15.4	12,500	2.8	94,700	21.5
Wisconsin.....	2,800	0.4	1,200	0.2	20,700	2.6	2,700	0.3	30,600	3.8
Wyoming.....	1,300	1.4	500	0.5	12,800	14.3	600	0.6	5,900	6.6
American Samoa.....	0	0.0	3,200	46.5	3,300	48.7	4,200	61.9	4,600	67.6
Canal Zone.....	0	0.0	3,200	25.4	0	0.0	0	0.0	9,000	72.1
Guam.....	700	5.9	0	0.0	3,100	26.7	0	0.0	8,900	75.5
Puerto Rico.....	142,500	25.6	45,800	8.2	367,600	66.0	265,800	47.7	540,400	97.0

¹ Columns may not add to exact totals because of varying inflation factors applied to individual school plants and because of rounding.

² Less than 50.

³ Less than one-tenth of 1 percent.

Table 13.—Number of permanent, nonpermanent school buildings, and offsite facilities by number of deficiencies reported, and by State: 1964-65

[Data for buildings are rounded to nearest 10]

State	Number of building deficiencies										Total number of buildings ¹
	None	One	Two	Three	Four	Five	Six	Seven	Eight	Nine	
Grand total¹	26,960	75,010	37,290	15,690	6,160	2,430	830	240	60	(²)	164,650
50 States and D. C.	26,940	74,880	36,180	14,380	5,320	2,000	680	240	60	(²)	160,670
Outlying Areas	10	130	1,110	1,310	830	430	150	0	0	0	3,980
Alabama	270	1,200	1,180	430	280	130	60	30	20	(²)	3,600
Alaska	80	60	60	30	20	(²)	(²)	(²)	(²)	0	260
Arizona	230	680	290	70	30	20	0	0	0	0	1,320
Arkansas	200	860	520	180	140	30	20	20	(²)	0	1,970
California	6,140	9,320	2,270	420	380	90	40	10	0	0	18,660
Colorado	430	810	290	190	80	30	(²)	10	0	0	1,850
Connecticut	920	530	110	20	0	0	0	0	0	0	1,580
Delaware	70	190	30	10	(²)	0	0	0	0	0	300
District of Columbia	70	150	50	20	10	(²)	(²)	0	0	0	300
Florida	830	1,680	780	330	120	60	20	(²)	0	0	3,830
Georgia	460	1,990	570	340	130	40	40	0	0	0	3,580
Hawaii	10	190	160	60	20	(²)	0	0	0	0	440
Idaho	60	220	190	150	50	40	10	10	(²)	0	720
Illinois	1,240	3,880	1,710	670	140	50	30	0	0	0	7,720
Indiana	450	1,830	1,000	430	190	20	20	0	0	0	3,920
Iowa	390	1,250	870	330	90	30	20	0	10	0	2,990
Kansas	330	1,840	800	330	50	20	(²)	0	10	0	3,370
Kentucky	320	940	650	390	290	180	80	10	10	0	2,870
Louisiana	520	1,840	620	270	110	50	10	0	0	0	3,430
Maine	180	400	370	200	70	20	(²)	(²)	0	0	1,240
Maryland	340	980	540	140	60	10	(²)	0	0	0	2,080
Massachusetts	830	1,060	380	240	60	20	10	10	0	0	2,620
Michigan	990	3,540	1,420	600	160	50	0	0	0	0	6,750
Minnesota	710	980	1,170	590	130	40	10	10	0	0	3,630
Mississippi	170	920	720	200	50	30	10	0	0	0	2,100
Missouri	390	1,430	1,290	440	270	110	30	30	0	0	3,990
Montana	200	430	490	210	70	20	(²)	0	0	0	1,420
Nebraska	840	830	960	430	110	30	(²)	10	0	0	3,210
Nevada	120	150	50	20	10	(²)	(²)	0	0	0	350
New Hampshire	100	270	190	90	30	10	(²)	0	0	0	690
New Jersey	560	2,180	370	180	60	0	0	0	0	0	3,350
New Mexico	120	680	230	110	20	30	(²)	(²)	0	0	1,200
New York	1,970	2,690	1,710	330	40	90	10	0	0	0	6,830
North Carolina	470	2,930	940	430	130	60	30	10	0	0	5,010
North Dakota	140	340	350	230	70	10	20	0	0	0	1,160
Ohio	890	3,640	1,620	610	110	40	20	0	0	0	6,940
Oklahoma	350	1,490	1,320	400	180	60	10	10	0	0	3,820
Oregon	500	1,180	450	260	80	20	0	0	0	0	2,490
Pennsylvania	520	4,440	950	320	80	40	0	10	10	0	6,370
Rhode Island	180	160	80	40	10	10	(²)	0	0	0	460
South Carolina	250	1,220	440	200	30	10	10	0	0	0	2,150
South Dakota	260	480	820	430	220	50	10	10	(²)	0	2,270
Tennessee	370	1,340	1,120	500	270	170	40	10	0	0	3,820
Texas	790	5,190	1,990	490	200	70	30	10	0	0	8,770
Utah	100	420	240	160	60	10	(²)	0	0	0	990
Vermont	110	150	180	110	50	10	10	(²)	(²)	0	610
Virginia	220	1,330	1,160	370	140	50	0	0	0	0	3,270
Washington	400	1,610	580	390	110	50	20	10	0	0	3,170
West Virginia	270	1,080	760	440	180	50	10	10	0	0	2,790
Wisconsin	500	1,710	940	480	110	40	10	10	0	0	3,800
Wyoming	100	200	180	80	30	10	10	0	0	0	610
American Samoa	0	(²)	(²)	10	30	(²)	0	0	0	0	50
Canal Zone	(²)	30	10	(²)	(²)	0	0	0	0	0	40
Guam	(²)	(²)	10	(²)	(²)	0	(²)	0	0	0	20
Puerto Rico	10	100	1,090	1,290	800	430	150	0	0	0	3,870

¹ Columns may not add to exact totals because of varying inflation factors applied to individual school plants and because of rounding.

² Less than 5.

Table 14.—Pupils enrolled in public school plants by selected ratios of pupils to instructional room, organizational level and by State: 1964-65

[Data for pupils are rounded to nearest 1,000]

State	Number and percent of pupils in—				Number of pupils in—					
	All school plants ²				Elementary school plants		Secondary school plants		Combined school plants	
	Less than 25		30 or more		Less than 25	More than 30	Less than 25	More than 30	Less than 25	More than 30
	Number	Percent	Number	Percent						
Grand total²	14,283,000	35.7	12,645,000	31.6	6,857,000	6,696,000	4,053,000	4,199,000	3,372,000	1,750,000
50 States and D.C.	14,260,000	36.2	12,115,000	30.7	6,844,000	6,421,000	4,045,000	4,066,000	3,370,000	1,629,000
Outlying Areas	23,000	3.8	530,000	90.0	13,000	276,000	8,000	133,000	2,000	121,000
Alabama	203,000	27.1	337,000	45.5	46,000	138,000	46,000	64,000	110,000	134,000
Alaska	17,000	40.5	7,000	15.9	11,000	2,000	1,000	2,000	6,000	2,000
Arizona	125,000	35.5	88,000	24.9	84,000	31,000	37,000	49,000	4,000	9,000
Arkansas	147,000	41.1	110,000	30.7	34,000	42,000	36,000	35,000	77,000	32,000
California	831,000	22.1	1,812,000	48.1	592,000	1,029,000	224,000	776,000	15,000	7,000
Colorado	159,000	34.5	151,000	32.9	76,000	92,000	65,000	58,000	18,000	1,000
Connecticut	279,000	54.2	60,000	11.6	154,000	43,000	97,000	10,000	27,000	7,000
Delaware	44,000	44.1	17,000	16.7	6,000	7,000	22,000	3,000	16,000	7,000
District of Columbia	23,000	16.7	50,000	36.5	10,000	47,000	13,000	2,000	NA	NA
Florida	224,000	20.7	436,000	40.4	103,000	159,000	59,000	230,000	61,000	48,000
Georgia	178,000	17.3	468,000	45.5	93,000	281,000	38,000	83,000	47,000	104,000
Hawaii	40,000	26.0	43,000	28.0	25,000	15,000	8,000	21,000	7,000	8,000
Idaho	70,000	43.7	33,000	20.5	24,000	19,000	27,000	6,000	19,000	7,000
Illinois	847,000	43.3	611,000	31.3	500,000	362,000	219,000	191,000	128,000	58,000
Indiana	366,000	34.6	323,000	30.6	133,000	213,000	82,000	75,000	151,000	35,000
Iowa	405,000	62.5	113,000	17.4	176,000	30,000	94,000	49,000	136,000	33,000
Kansas	300,000	56.1	101,000	18.9	165,000	47,000	85,000	46,000	51,000	7,000
Kentucky	188,000	31.0	165,000	27.2	101,000	85,000	30,000	41,000	57,000	40,000
Louisiana	293,000	38.1	230,000	29.9	81,000	127,000	43,000	70,000	169,000	33,000
Maine	90,000	44.1	39,000	19.3	49,000	30,000	30,000	7,000	10,000	3,000
Maryland	136,000	18.9	305,000	42.4	56,000	209,000	65,000	76,000	15,000	20,000
Massachusetts	402,000	44.8	153,000	17.1	184,000	97,000	164,000	50,000	54,000	7,000
Michigan	553,000	30.6	703,000	39.0	284,000	373,000	153,000	192,000	115,000	138,000
Minnesota	432,000	55.0	153,000	19.5	118,000	81,000	146,000	54,000	168,000	18,000
Mississippi	164,000	28.7	259,000	45.3	30,000	87,000	30,000	20,000	103,000	152,000
Missouri	363,000	44.5	223,000	27.3	137,000	140,000	92,000	72,000	134,000	12,000
Montana	95,000	53.8	29,000	16.7	45,000	5,000	17,000	18,000	33,000	6,000
Nebraska	226,000	65.1	59,000	17.0	77,000	31,000	46,000	20,000	103,000	8,000
Nevada	31,000	34.7	26,000	29.2	18,000	12,000	8,000	14,000	5,000	NA
New Hampshire	57,000	45.5	23,000	18.3	23,000	17,000	20,000	5,000	13,000	1,000
New Jersey	550,000	47.3	212,000	18.3	354,000	98,000	152,000	107,000	44,000	7,000
New Mexico	100,000	41.3	59,000	24.3	48,000	26,000	39,000	33,000	13,000	(³)
New York	1,184,000	37.8	820,000	26.2	683,000	276,000	285,000	419,000	217,000	124,000
North Carolina	364,000	31.7	327,000	28.5	146,000	150,000	63,000	79,000	154,000	97,000
North Dakota	91,000	60.0	29,000	19.2	25,000	8,000	11,000	5,000	55,000	15,000
Ohio	680,000	31.0	647,000	29.5	332,000	377,000	195,000	229,000	152,000	41,000
Oklahoma	303,000	53.2	125,000	21.9	92,000	85,000	82,000	32,000	130,000	8,000
Oregon	233,000	53.6	61,000	14.1	147,000	19,000	71,000	38,000	15,000	4,000
Pennsylvania	658,000	31.2	631,000	30.0	344,000	405,000	246,000	186,000	69,000	39,000
Rhode Island	59,000	39.0	44,000	29.0	29,000	28,000	24,000	15,000	6,000	1,000
South Carolina	161,000	25.6	284,000	45.1	48,000	160,000	64,000	50,000	49,000	73,000
South Dakota	113,000	67.9	21,000	12.6	38,000	8,000	8,000	10,000	67,000	3,000
Tennessee	212,000	25.6	273,000	32.8	104,000	160,000	67,000	64,000	41,000	48,000
Texas	1,039,000	48.0	538,000	24.8	457,000	295,000	328,000	148,000	255,000	95,000
Utah	82,000	30.3	110,000	40.7	36,000	61,000	37,000	46,000	8,000	2,000
Vermont	52,000	64.2	9,000	10.8	25,000	5,000	16,000	3,000	12,000	1,000
Virginia	216,000	23.3	330,000	35.6	93,000	213,000	76,000	56,000	46,000	61,000
Washington	314,000	43.8	136,000	19.0	129,000	84,000	153,000	41,000	32,000	11,000
West Virginia	141,000	32.1	154,000	35.0	78,000	53,000	28,000	83,000	35,000	17,000
Wisconsin	368,000	45.6	170,000	21.1	183,000	54,000	84,000	75,000	101,000	40,000
Wyoming	52,000	57.6	9,000	9.9	18,000	3,000	18,000	4,000	15,000	1,000
American Samoa	1,000	8.5	4,000	55.0	1,000	3,000	NA	NA	(³)	1,000
Canal Zone	7,000	53.5	1,000	11.7	3,000	NA	3,000	NA	1,000	1,000
Guam	3,000	21.4	8,000	68.3	1,000	6,000	1,000	2,000	1,000	NA
Puerto Rico	13,000	2.3	516,000	92.7	9,000	267,000	4,000	131,000	(³)	119,000

¹ The ratio is determined by dividing all the instructional rooms (including makeshift or improvised, nonpermanent, and off-site facilities) reported in a school plant into all the pupils attending school in those rooms.

² Columns may not add to exact totals because of varying inflation factors

applied to individual school plants and because of rounding.

³ Less than 500.

NA—Not applicable.

Table 15.—Number of additional rooms needed for instructional use as determined by varying measures of pupil accommodation and according to local opinion of rooms needed to eliminate overcrowding, by State: 1964-65

[Data for rooms are rounded to nearest 100]

State	Number of additional rooms needed to reduce maximum class size to—			Local appraisal of overcrowding
	Level I	Level II	Level III	
	25.0 Elementary pupils per room 20.0 Secondary pupils per room	27.4 Elementary pupils per room 27.5 Secondary pupils per room	30.0 Elementary pupils per room 30.0 Secondary pupils per room	
Grand total¹.....	298,200	106,700	57,400	108,500
50 States and D.C.....	285,900	98,300	50,800	104,400
Outlying Areas.....	12,300	8,300	6,600	4,100
Alabama.....	7,100	2,700	1,400	2,200
Alaska.....	200	100	(²)	200
Arizona.....	2,600	900	500	1,100
Arkansas.....	2,600	1,000	600	1,100
California.....	33,500	12,300	5,900	7,400
Colorado.....	3,600	1,300	600	1,100
Connecticut.....	2,000	500	200	2,100
Delaware.....	500	100	100	400
District of Columbia.....	1,100	400	200	600
Florida.....	10,000	3,300	1,500	3,000
Georgia.....	9,600	3,800	2,000	4,000
Hawaii.....	1,200	300	100	100
Idaho.....	1,100	300	200	400
Illinois.....	13,500	6,400	4,100	5,400
Indiana.....	7,300	2,300	1,100	2,600
Iowa.....	3,500	1,200	700	1,100
Kansas.....	2,700	800	300	1,700
Kentucky.....	4,400	1,400	600	1,900
Louisiana.....	5,600	2,000	1,100	1,200
Maine.....	1,100	300	200	800
Maryland.....	6,600	2,200	1,000	3,000
Massachusetts.....	5,000	1,200	500	3,200
Michigan.....	14,700	5,600	3,000	4,000
Minnesota.....	3,800	1,100	500	2,300
Mississippi.....	5,500	2,500	1,600	1,300
Missouri.....	4,900	1,700	900	2,300
Montana.....	900	300	200	700
Nebraska.....	1,500	600	400	1,200
Nevada.....	600	200	100	300
New Hampshire.....	700	200	100	500
New Jersey.....	6,500	1,500	600	3,700
New Mexico.....	1,600	500	200	600
New York.....	22,900	7,800	4,400	12,300
North Carolina.....	8,100	2,800	1,400	4,000
North Dakota.....	800	300	200	500
Ohio.....	15,100	4,700	2,200	3,500
Oklahoma.....	3,100	900	400	1,300
Oregon.....	2,200	600	300	900
Pennsylvania.....	16,900	5,100	2,700	4,500
Rhode Island.....	1,100	400	200	600
South Carolina.....	5,700	2,200	1,100	1,800
South Dakota.....	600	200	100	800
Tennessee.....	6,700	2,200	1,000	2,000
Texas.....	13,300	4,700	2,600	3,200
Utah.....	2,300	800	400	600
Vermont.....	300	100	(²)	500
Virginia.....	7,800	2,700	1,200	2,100
Washington.....	4,300	1,100	500	1,100
West Virginia.....	4,000	1,400	700	1,300
Wisconsin.....	4,900	1,400	700	1,700
Wyoming.....	400	100	(²)	400
American Samoa.....	100	100	(²)	(²)
Canal Zone.....	100	(²)	(²)	(²)
Guam.....	100	(²)	(²)	(²)
Puerto Rico.....	12,000	8,200	6,500	4,000

¹ Columns may not add to exact totals because of varying inflation factors applied to individual school plants and because of rounding.

² Less than 50.

APPENDIX C

Questionnaire Items

HEW—SURVEY OF SCHOOL PLANTS
U.S. Department of Health, Education, and Welfare
Office of Education
Washington, D.C. 20202

OE 2141 (8-63)
Bureau of the Budget No. 51-R431.1
Approval Expires: 4/1/65

SCHOOL PLANT INFORMATION

(Preprinted Plant Information appeared on each form)

Name and address of school(s) located on this site:

Selection Code

Plant Code

Site Totals: Designed rooms xxx Makeshift rooms xx
[Grade Span(s) and Enrollment(s) were preprinted in
question box headings]

A. Elementary grade span

Lowest _____

Highest _____

B. Elementary pupil enrollment at this site on or about
September 30, 1964 *excluding* kindergarten and
nursery _____

C. Nursery and kindergarten pupil enrollment _____

D. Secondary (Middle, High, Jr. High, etc.,) grade span

Lowest _____

Highest _____

E. Secondary pupil enrollment, *excluding* junior college
or grades 13 and 14 _____

F. Number of full-time day students in junior college
or grades 13 and 14 who share this school plant *at
the same time during the day* _____

G. According to standards for class-size for most offer-
ings, do you consider the school plant overcrowded
when *all* instructional rooms (excluding makeshift
or improvised rooms) are taken into account?

Yes _____ No _____

H. How many additional regular and special instruc-
tional rooms are needed to eliminate overcrowding?

I. If instructional rooms are needed to eliminate over-
crowding in this school plant, what type(s) of *special
instructional facilities* are needed, if any?

None _____

Science laboratory _____

Language laboratory _____

Industrial, vocational or technical shop _____

Arts and/or crafts laboratory _____

Music _____

Home economics laboratory _____

Kindergarten room _____

Other _____

J. Do water pressure and supply at outlets in the
building(s) adequately meet local and/or State
health requirements? (It is assumed that water sup-
ply meets the usual needs during the school day.)

Yes _____

No _____

No water piped to building(s) _____

K. Do number and distribution of sanitary facilities
(e.g., toilets, wash basins, drinking fountains, etc.)
meet applicable health requirements?

Yes _____

No _____

L. Location of toilets:

In building(s) _____

In privy (ies) _____

M. Is hot water available at most hand washing lava-
tories?

Yes _____

No _____

INSTRUCTIONAL BUILDING(S)

Instructions:

1. Complete one section for *each* building used for *in-
structional purposes*. Preprinted data will assist you
in identifying the building or addition to be reported
in each section, if more than one unit is located on
this site. Please provide additional information for
any omitted or new buildings or additions.
2. If a *group* of *nonpermanent* buildings (e.g. port-
ables, transportables, mobile classrooms, etc.) have
similar structural characteristics, complete *one sec-
tion* for the *group*.

3. When answering structural, fire, and health questions, mark the responses with generally characterize the *entire* building, addition, or nonpermanent facility.
4. If instructional rooms are off-site, enter *only* information for the portion of the off-site facilities used by your school.

Items:

1. Type of building or location of instruction rooms?
 - a. Building no longer in use
ON SITE:
 - b. Permanent building
 - c. Addition to permanent building
 - d. Nonpermanent building (e.g. portables, trans-portables, etc.) and mobile classroom(s).
 - OFF SITE:
 - e. On another school site
 - f. Not on another school site (e.g. public and non-public buildings, residences, churches, etc.)
2. Total number of rooms designed or remodeled for instruction, *excluding* improvised or makeshift classrooms and general-use facilities. _____
3. Total number of improvised or makeshift rooms used for instruction, but not designed or remodeled for this usage: e.g., basements, etc. _____
4. Are any indications of structural defects evident? (Bulging, shifting, sagging, or cracking of foundations, walls, roofs, or floors.)

None	_____
Slight, evident for several years	_____
Slight, recently observed	_____
Extensive, evident for several years	_____
Extensive, recently observed	_____
5. Does the heating system permit a temperature range of 68° — 74° F. to be maintained in *instructional rooms*?

Yes	_____
No	_____
Not applicable	_____

6. Is the fire alarm distinctly different from program signals, and audible throughout the building?

Yes	_____
No	_____
Fire alarm not provided	_____
7. Are stairwells and stairways constructed of fire-resistive materials?

Yes	_____
No	_____
No stairways	_____
8. Are stairways and stairwells properly enclosed so as to separate them from the corridor in order to prevent the spread of smoke or fumes?

Yes	_____
No	_____
No stairways	_____
9. Do exit provisions meet applicable State or local fire-protection standards?

Yes	_____
No, minor infraction(s)	_____
No, major infraction(s)	_____
10. Is a sprinkler system or fire detection system provided in high fire hazard areas (basements, storage rooms, etc.)?

Yes	_____
No	_____
11. Does the electrical system meet usual demands placed upon it during the school day?

Yes	_____
No—wiring circuits insufficient	_____
No electric service in building	_____
12. Is a sufficient amount of nonglare daylight and/or artificial light, uniformly distributed, on desks, chalkboards, and other pupil-work stations in *instructional* rooms? (Approximately 30 foot candles or more.)

Completely satisfactory	_____
Partially satisfactory	_____
Unsatisfactory	_____

☆ U. S. GOVERNMENT PRINTING OFFICE: 1965—774-144